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 Protein Accession #: built from XP_031379

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 Protein Accession #: NP_002842.1

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| | TAQPDVGSGR | ESFLQNTYTE | IRVDESEKIT | KSFAGPVM8 | QGPSVTDLEM | PHYSTFAYFP | 720 |
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| | LNTTPAASSS | DSALHATPVF | PSVDVSFESI | LSSYDGAPLL | PFSSASFSSE | LFRHLHTVSO | 840 |
| | ILPQVTSATE | SDKVPLHASL | PVAGGDLLE | PSLAQYSDVL | ETTHAASETL | EPGSESGVLY | 900 |
| | KTLMFSQVEP | PSSDAMMHAR | SSGPEPSYAL | SDNEGSSQHF | TVSYSSAIPV | HDSVGVTYQG | 960 |
| 10 | SLFSGPSHIP | IFKSSLIPTT | ASLLQPTHAL | SGDGEHSGAS | SDSEPLLPDT | DGLTALNISS | 1020 |
| | PVSVAEPTYT | TSVPGDDNKA | LSKSEIYGN | ETELQIPSFN | EMVYPSSESTV | MPNMXDNVVK | 1080 |
| | LNASLQETSV | SISSTKGMFP | GSLAHTTKV | FDHEISQVPE | NNFSVQPTHT | VSOAGSDTSL | 1140 |
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| | TISYASEKYE | PVLKSESSH | QVPSLYSND | ELFQTANLEI | NQAHPPKGRH | VPATPVL5ID | 1320 |
| 15 | EPLNTLINK | IHSDEILTST | KSSVTGKVFA | GIFTVASDTF | VSTDH5VPIG | NGHVAITAVS | 1380 |
| | PHRDG5VST | KLFPSPKATS | ELSESASDA | GLVGGGKDCD | TDDGDDDDDD | RDSGGLSIHK | 1440 |
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| | PGK5FSANGL | SQKENDKES | NDIQTGSALL | PLSPESKAWA | VLTSD5ESGS | QGGTSDSLNE | 1560 |
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| 20 | BSRIGLAEGL | E5EKKAVIPL | VIVSALT5PIC | LVLVL5GILIY | WRKCFQTAHF | YLED5TSP5RV | 1680 |
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| 25 | LAY5TVR5FT | LVN5TKLK5GS | QVPR5SGRVV | TQYHYTQWPD | M5V5EY5LPV | L5TFVRK5A5YA | 1920 |
| | K5H5AV5FV5V | H5CS5AGV5RTG | TYIVL5DSMLQ | QIQH5EGT5VNI | F5GLK5H5RSQ | RNYLVQ5TE5Q | 1980 |
| | Y5VF5HDT5IVE | A5IL5KET5EVL | D55H5I5AY5VNA | L5LIP5G5AGKT | K5LEK5Q5FLL5 | Q5NI5Q5SD5YS | 2040 |
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| 30 | E5KL5I5Q5FT | LEAT5QDD5VL | EV5RH5P5Q5CP5K | PN5PD5P5I5KT | F5EL5IS5V5IK5E | AA5NR5D5GF5NIV | 2220 |
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Seq ID NO: 383 DNA sequence

Nucleic Acid Accession #: NM_005688.1

Coding sequence: 126..4439

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| 45 | GAAAGTACCA | TCATGGCTTG | AGTGCTCTGA | AGCCCATCGG | GACTACTTCC | AAACACCAAGC | 420 |
| | ACCCAGTGA | CAATGCTGGG | CTTTTTCCT | GTATGACTTT | TTCGTGGCTT | TCCTCTCTGG | 480 |
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| | AOCAGTCTTC | TGACCTGAAC | TGCAGAGAGC | TAGAGAGACT | GTGGCAAGAA | GAGCTGAATG | 600 |
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| 50 | TCATCCTGTC | CATCGTGTGC | CTGATGATCA | CGCAGCTGGC | TGGCTTCAGT | GGACCAAGCT | 720 |
| | TCATGGTGAA | ACACCTCTTG | GAGTATACCC | AGGCAACAGA | GTCTAACCTG | CAGTACAGCT | 780 |
| | TGTTGTAGT | GCTGGGCGTC | CTCCTGACGG | AAATCGT5G5 | GTCCTGTGCG | CTTGCACTGA | 840 |
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| 70 | CCGAAGAGGA | AGAAAGCAAG | CACATCCACC | TGGGCCACCT | CGCTTACAG | AGGACACTGC | 1860 |
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Seq ID NO: 384 Protein sequence
 Protein Accession #: NP_005679.1

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 NHIFNSAIRK HLKSKTVLFV THQLQYLVD DEVIFMKEG IYERGTHEEL MNLNGDYATI 780
 FNNLLGTFP PVEINSKKE SGOQKKSQDK GPKTGSVKKE KAVKPEBQQL VQLEEKQGS 840
 VPWSVYGVYI QAAGGLAPL VIMALEMLNV GSTAFSTHML SYWIKQSGSN TTVTRGNETS 900
 VSDSMKDNPE MQYYASIAL SMAYMLILKA IRGVVFKGT LRASSRLHDE LFRRLRSPM 960
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 LVILFVSLHI VSVLIRELK RLQNTQSPF LSHITSSIQ LATIHAYNG QEFRLRYQEL 1080
 LDDNQAPFFI PRCANFLAV RLQLSIALI TTGLMIVLM HQQIPAYAG LAISYAVQLT 1140
 GLFQFTVRLA SETEARTSV ERINHYIKL SLEAPARIK KAPSPWPQGE GEVTFENAE 1200
 RXRENLPLVL KXVFTIKPK EKIGIVGRTG SQKBSLGMAL FRIVELSGGC IKIDGVRI 1260
 IGLADLRSLK STIPQEPVLF SGTVRNLPF FNQYTEDQIV DALERTHME CIAQLPLKLE 1320
 SEVMENGNF SVGERQLLCI ARALLRHCKI LILDEATAAM DTETDLIQE TIRRAPADCT 1380
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Seq ID NO: 385 DNA sequence
Nucleic Acid Accession #: NM_001327.1
Coding sequence: 89..631

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      GACGGGCGAT GCTGATGGCC CAGGAGGCCG TGGCATTCCT GATGGCCAG GGGGCAATGC 180
10     TGGCGGCCCA GAGAGGCGCG GTGCCACGGG CGGCAGAGGT CCGCGGGCG CAGGGGCGGC 240
      AAGGGCTCGG GGGCGGGGAG GAGGCGCCCC CGCGGCTCG CATGGCGGCG CGGCTTCAGG 300
      GCTGAATGGA TGGTGCAGAT GCGGGGCCAG GCGGCGGGAG AGCGCGCTGC TTGAGTCTTA 360
      CCTCGCCATG CCTTCGCGA CACCCATGGA AGCAGAGCTG GCGCGCAGGA GCCTGGCCCA 420
      GGATGCCCCA CCGCTTCCCG TGCCAGGGGT GCTTCTGAAG GAGTTCACGT TGTCGGCAA 480
15     CATACTGACT ATCCGACTGA CTGCTGCAGA CCACGCCCAA CTGCAGCTCT CCATCAGCTC 540
      CTGCTCCAG CAGCTTTCCT TGTGTATGTG GATCAGCGAG TGCTTTCTGC CCGTGTTTTT 600
      GGCTCAGCTC CCGTCAGGCG AGAGGCGCTA AGCCGAGCCT GCGGCCCTTT CCTAGGTCTAT 660
      GCTCTCTCCC CTAGGGAATG GTCCAGCAC GAGTGGCCAG TTCATTGTGG GGGCCTGATT 720
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Seq ID NO: 386 Protein sequence
Protein Accession #: NP_001318.1

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      PRGPHGGAAS GLNGCCRCGA RGPESRLLEF YLAMPFATPM EAEIARRSLA QDAEPFLVPG 120
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Seq ID NO: 387 DNA sequence
Nucleic Acid Accession #: Bos sequence
Coding sequence: 52..459

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      CCTGATGSCC CAGGGGGCAA TGCTGGGGCC CAGGAGAGG CCGGTGCCAC GGGCGGCAGA 180
      GGTCCCGCGG GCGCAGGGGC AGCAAGGGCC TCGGGCCGA GAGGAGGCGC CCGCGGGGT 240
40     CCGCATGGCG GTGCCCTTC TGCGCAGGAT GGAAGGTGCC CCTGCGGGGC CAGGAGGCCG 300
      GACAGCCGCC TGCTTCAGAT CCGACTGACT GCTGCAGACC ACCGCCAAT CTGAGCTCTCC 360
      ATCAGTCTCT GTCTCCAGCA GCTTCCCTG TTGATGTGGA TCACGCACTG CTTTCTGCC 420
      GTGTTTTTGG CTGAGCTCC CTGAGGCGAG AGGCGCTAAG CCGAGCCTGG CGCCCTTCC 480
45     TAGGTCTATG CTCTCCCTT AGGGAATGGT CCCAGCAGA GTGGCCAGTT CATTTGTTGG 540
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Seq ID NO: 388 Protein sequence
Protein Accession #: Bos sequence

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Seq ID NO: 389 DNA sequence
Nucleic Acid Accession #: NM_005562.1
Coding sequence: 90..3671

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65     GCTTCTGCT CCTCTGCCC GCAGCCCGGG CCACCTCCAG GAGGGAAGTC TGTGATTGCA 180
      ATGGGAAGTC CAGGCAGTGT ATCTTTGATC GGGAACTTCA CAGACAAACT GGTAAATGGAT 240
      TCCGCTGCT CAACTGCAAT GACAAACTG ATGGCATTC CTGCGAGAAG TGCAAGAATG 300
      GCTTTTACCG GCACAGAGAA AGGGACCGCT GTTTGCCCTG CAATTGTAAAC TCCAAAGGTT 360
      CTCTTAGTGC TCGATGTGAC AACTCTGGAC GGTGCAGCTG TAAACCAAGT GTGACAGGAG 420
70     CCAGATGCGA CGATGTCTG CCAGGCTTCC ACATGCTCAC GGATGCGGG TGCAACCAAG 480
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      GGCATTGAGC CAGCTGCCBC AGCTCTGCAG AATACASTGT CCATAAGATC ACCTTACCT 720
75     TTATCAAGA TGTGATGGC TGGAAAGCTG TCCAAAGAAA TGGTCTCTCT GCAAAGCTCC 780
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      CATATGAGA ATACATGACT GGGTACATG ACAATGTGAC CCGTATTTCA GCGCGCCTG 1200
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5 GCACCTGTAT TCCTTGTAAAC TGTCAAGGGG GAGGGGCGCTG TGATCCAGAC ACAGGAGATT 1380
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Seq ID NO: 190 Protein sequence
 Protein Accession #: NP_005553.1

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Seq ID NO: 392 Protein sequence

Protein Accession #: AAD16433.1

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 IGGALFLAG LAILVATANY GNRIVQEFYD PMTFVNARYE FGQALFTGWA AASLCLLGGA 180
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Seq ID NO: 393 DNA sequence
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Coding sequence: 352..2820

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70 Seq ID NO: 394 Protein sequence
Protein Accession #: NP_006171.1

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SRKIPLANLQ IPNCLPSPAN LAAPNLTVFR GKSLTLCSCV AGDPVENMYW DVGNLVSKHM 240
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LIAKMEYKGD EKQISAHFNG WPGIDDGANP NYPDVIYEDY GTAANDIGDT TNRSNEIPST 420
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VKPYGVCEG DFLIMVFEYM KRGDLNKFLR AHGPDVILMA BGNPPTTELQ SQMLHIAQQI 660
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Seq ID NO: 395 DNA sequence
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1 11 21 31 41 51
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Seq ID NO: 396 Protein sequence
 Protein Accession #: AAL67965.1

1 11 21 31 41 51

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 KPDTFVQHFK RKNIVLKRHL GEGAFGKVF L AECYNLCPEQ DKILVAVKTL KDASDNARKD 600
 EHRBAELLTN LQHEHIVKFY GVCVEEDPLI MVFEYMKHGD LKKFLRAHGF DAVLMAEGNP 660
 PTELTQSQML HLAQQAAGM VYLAHQHFN RDLATRNCLV GENLLVKIGD FGMSRDVYST 720
 DTYKVGGHM LPIRMPPES IMYRKFTES DVVSLGVVLW EIFTYKQKFN YQLERNNEVIE 780
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Seq ID NO: 397 DNA sequence
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Seq ID NO: 398 Protein sequence
 Protein Accession #: BAB61048.1

1 11 21 31 41 51
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Seq ID NO: 399 DNA sequence
 Nucleic Acid Accession #: NM_001898.1
 Coding sequence: 57..482

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 TCTACGAAGT TCCCTGGGAG AACAGAAGGT CCTGTGTGAA ATCCAGGTGT CAAGAATCCT 480
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 CCACCCCTGG ACTGTGCGCC CCCACCTGCG GGGAGGCCCT CCCATGTGCC TGCCCAAGA 600
 GACAGACAGA GAAGGCTGCA GGAATCTTTT GTTGTCTCAG AGGGCGCTCT GCCCTCCCTC 660
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 AACAGTAGC ATCGCC

Seq ID NO: 400 Protein sequence
 Protein Accession #: NP_001889.1

1 11 21 31 41 51
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 DDYYRRLRV LRARQIVGG VNYFFDVEVG RTICTKSQPN LDTCAFHEQP ELQKKQLCSF 120

EIVEVPWENR RSLVKSRCQE S

Seq ID NO: 401 DNA sequence

Nucleic Acid Accession #: NM_003976.2

Coding sequence: 299-961

5

| | | | | | | | |
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| | CATGGAGTTG | TGAAAGAATA | GCTGCAAAAGC | ACCTAACACA | TAGTAAGGTT | CCCAAGTGCAG | 120 |
| | TACTTCTCTG | TGGGTTGAGT | CTAGCTGTGT | AGGCCCTCTG | TTCCTCAGCT | GGAGAAACTG | 180 |
| | GGGTGGCAGG | CGGGTCCCCC | ACAAAAGATA | ACTCATCTCT | TAATTTGCAA | GCTGCCTCAA | 240 |
| | CAGGAGGGTG | GGGGAACAGC | TCAACAATGG | CTGATGGGCG | CTCCTGTGTG | TGATAGAGAT | 300 |
| | GGAACTTGGA | CTTGAGAGCC | TCTCCACGCT | GTCCCACTGC | CCCTGGCCTA | GGCGGAGGCC | 360 |
| 15 | TGCGCTGTGG | CCACCCCTGG | CGGCTCTGGC | TCTGCTGAGC | AGCGTCCGAG | AGGCTTCCCT | 420 |
| | GGGCTCCGGG | CCCGGACGCG | CTGCCCCCGG | CGAAGGCCCG | CCGCTGTGCC | TGGGCTCCCG | 480 |
| | CGCCGGCCAC | CGGCGGGGGG | GACGCAACGC | CGCTGGTGCG | AGTGGAGAGG | CCCGGCGGCC | 540 |
| | GCAGCGCGCAG | CCTTCTCGGC | CCGCGCCCCC | GCGGCTGCA | CCCCCATCTG | CTCTTCCCCG | 600 |
| | CGGCGGCGGC | GCGGCGGGGG | CTGGGGGGCC | GGGACGCCGC | GCTCGGGCAG | CGGGGGGGCG | 660 |
| 20 | GGGCTGCGCG | CTGCGCTCGC | AGCTGGTGCC | GGTGGGCGCG | CTCGGCTTGG | GCCACCGCTC | 720 |
| | CGACGAGCTG | GTGGGTTTCC | GCTTCTGCGG | CGGCTCTGCG | CGCGCGCGCG | GCTCTCCACA | 780 |
| | CGACCTCAGC | CTGGCGACGC | TACTGGGCGC | CGGGGCCCTG | CGACCGCCCG | CGGGCTCCCG | 840 |
| | GCCCCGTCAGC | CAGCCCTGCT | GCGGACCCAC | GCGCTACGAA | GCGGTCTCCT | TCAAGGACGT | 900 |
| | CAACAGCACC | TGGAGAACCG | TGGACCGCCT | CTCGGCCACC | GCTCGGGGCT | GCTTGGGCTG | 960 |
| 25 | AGGCTCTGCT | CGAGCGCTTT | GCAGACTGGA | CCCTTACCGG | TGGCTCTTCC | TGCTTGGGAC | 1020 |
| | CTTCCCGCTG | AGTCCCACTA | GCGGCGGCGC | TGAGCCAGGG | ACGAGGGCCT | CAAGCTGAGG | 1080 |
| | AGGCCCCAC | CGGTGGGTGA | TGGATATCAT | CCCGAACACG | GTGAAGGGAG | AACTGACTAG | 1140 |
| | CAGCCCCAGA | GCCCTCACCC | TGCGGATCCC | AGCCTAAAAG | ACACCAGAGA | CCTCAGCTAT | 1200 |
| | GGAGCCCTTC | GGAGCCACTT | CTCAGAGACT | CTGGCACTGG | CCAGGCTTCG | AACTGGGGAG | 1260 |
| 30 | CCCTCTCTCT | ATGAACACTA | CAGTGGCTGA | GGCATCAGCC | CCCGCCGAGG | CCCTGTAGGG | 1320 |
| | ACAGCATTTG | AAGGACACAT | ATTGCAGTTG | CTTGGTTGAA | AGTGCTCTGT | CTGGAACCTG | 1380 |
| | CCTGTACTCA | CTCATGGGAG | CTGGCCCC | | | | |

Seq ID NO: 402 Protein sequence

Protein Accession #: NP_003967.1

35

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| 40 | MELGLGGLST | LSHCNPFRPQ | PALWFTLAL | ALLSSVAZAS | LGSAPRSPAP | REGPPPVLAG | 60 |
| | PAGLPLPGRT | ARWCSGRARR | PPQPSPRPAP | PPPAPPSPALP | RGGRARARAG | PGSRARAAGA | 120 |
| | RGCLRLRQLV | PVRALGLGHR | SDBLVRFRFC | SGSCRRARSP | HDLSLASLLG | AGALRPPPGS | 180 |
| | RPVSQPOCRP | TRYEAVSFMD | VNSTWRTVDR | LSATACGCLG | | | |

Seq ID NO: 403 DNA sequence

Nucleic Acid Accession #: NM_057091.1

Coding sequence: 783..1445

45

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| | GGACCCCAAA | ATCTGCACGT | ACCAGCAGTC | AGCCGCCCCA | CGCAGGAGCC | GGCTTACCCC | 120 |
| | TGCTCCCGCG | CCCTCACTCA | CTTCTCCCG | CCCTCGGGCC | GGCTTCCAG | CTCTCACTCT | 180 |
| | CGGTGTCTA | CAAACTCAAC | TCCCGGTTTC | CGTGCCTCTC | CACCGCTCGA | GTTCTCTACT | 240 |
| | CTCCATATCC | GAGGGGGCCC | TCCAGCAGTC | TACCCGCCCT | CCAACCTCGG | GGGACCTAGC | 300 |
| 55 | CAAGCTAGGG | GGGACTGGAT | CCGACGGGTG | GAGCAGCCAG | GTGAGCCCGG | AAAGGTGGGG | 360 |
| | CGGGGAGGG | GCGCTCCAG | CCCCACCCCG | GGATCTGGTG | ACGCTGGGGC | TGGATTGTGA | 420 |
| | CACCGGAGGG | CTGGCGGGCG | GGGACGAGGG | CTGCTGAGGG | ATGGAGTTGG | GCCCGGCCCG | 480 |
| | CAGACAGGCG | CCGGGGGGCTC | CGCCAGCAGC | AGGTCCCTCG | GGCCCCAGCC | CTGCTGCGCA | 540 |
| | CCCGGGGCTG | GAGCCCCACA | CCGAGGGGTG | CAGACTGGCT | GCCAGGGCCA | CACCTTTGGC | 600 |
| 60 | TAAAGAGGC | ACTGCCAGGT | GTACAGTCC | GGCATGCGC | TGTTTGAAGT | TGGGGGAGA | 660 |
| | CGCCAGCACT | GGTCCCGGGA | AAGGTGCCCTA | GAAGAACAG | GTGCAGGACC | CGTCTCTCC | 720 |
| | TCAACAGGAG | GGTGGGGGAA | CAGCTCAACA | ATGGCTGATG | GGCGCTCTCT | GTGTTGATAG | 780 |
| | AGATGGAATC | TGGACTTGGG | GGCTCTCCA | CGCTGTCCA | CTGCCCTCGG | CTAGAGCGGC | 840 |
| | AGCTTGCCCT | GTGGCCCAAC | CTGGCCGCTC | TGGCTCTGCT | GAGCAGGCTC | GCAAGGGCCT | 900 |
| 65 | CCCTGGGGTC | CGCGCCCGC | AGCCCTGCC | CCCGGAGAG | CCCCCGGCT | GTCTTGGCGT | 960 |
| | CCCGCGCGGG | CCACCTGCGG | GGGGGACGCA | CGCGCCGCTG | GTGCAGTGGG | AGAGCCCGGC | 1020 |
| | GGCGCGCGCC | GCAGGCTTCT | CGCGCCGCGC | CCCGCGCGCC | TGCACCCCCA | TCTGCTCTTC | 1080 |
| | CCCGCGCGGG | CGCGCGCGCG | CGGGCTGGGG | GCCCGGGCAG | CCGCGCTCGG | GCAAGCGGGG | 1140 |
| | CGCGCGGGCTG | CGGCTTGGCG | TGGCAGCTGG | TGCCGGTGGG | CGCGCTCGCG | CTGGGCGACC | 1200 |
| 70 | GCTCCGACGA | GCTGGTGGCT | TTCGCTTCT | GCAGCGGCTC | CTGCGCGCGC | GCGCGCTCTC | 1260 |
| | CACACGACCT | CAGCCTGGCC | AGCCTACTGG | GCGCGGGGCG | CGTGGCAGCG | CCCGCGGGCT | 1320 |
| | CCCGCGCGCT | CAGCGCGGCC | TGCTGCGGAC | CCAAGCGCTA | CGAAGCGGTC | TCTTCAATGG | 1380 |
| | ACGTCAACAG | CACCTGGAGA | ACCGTGGAGC | GCTCTTCCGC | CACCGCTTGC | GGCTGCTTGG | 1440 |
| | CTGAGGGGCT | CGCTCCAGGG | CTTTCAGAGC | TGGACCTTCA | CCGGTGGGCTC | TTCTTGGCTG | 1500 |
| 75 | GGACCTTCCC | GCAGAGTCCC | ACTAGCCAGC | GGCTTCAGCC | AGGGACGAGG | GCTTCAAGGC | 1560 |
| | TGAGAGGCCC | CTACCGGGTG | GTGATGGATA | TCACTCCGCA | ACAGGTGAAG | GGACAACCTGA | 1620 |
| | CTAGAGGCCC | CAGAGCCCTC | ACCTTCCGGA | TCCAGCCCTA | AAAGACACCA | GAGACCTCAG | 1680 |
| | CTATGAGGCC | CTTGGGACCC | ACTTCTCACA | GACTCTGGCA | CTGGCCAGGC | CTGSAACCTG | 1740 |
| 80 | GGACCCCTCC | TCTGATGAAC | ACTACAGTGG | CTGAGGCATC | AGCCCGCCCG | CAGGCCCTGT | 1800 |
| | AGGACAGCA | TTTGAAGGAC | ACATATTGCA | GTGCTTGGT | TGAAGGTGCC | TGTGCTGGAA | 1860 |
| | CTGGCCTGTA | CTCACTCATG | GGAGCTGGCC | CC | | | |

Seq ID NO: 404 Protein sequence

Protein Accession #: NP_003967.1

1 11 21 31 41 51
 5 MELGLGLST LSHCPWPRRQ PALWPTLAAL ALLSEVABAS LGSAPRSPAP REGPPFVLAS 60
 PAGHLPGGRT ARWCSGRARR PPPQSRPAP PPPAPPSALP RGGRAARAGG PGSRRARAAGA 120
 EGCLRLSQLV FVRALGLGHR SDELVRFRFC SGSCRRARSP HDLSLASLLG AGALRPPFGS 180
 RPSQPCCRP TRYEAVSFMD VNSTWRTVDR LSATACGCLG

10 Seq ID NO: 405 DNA sequence
 Nucleic Acid Accession #: NM_057160.1
 Coding sequence: 1..714

1 11 21 31 41 51
 15 ATGCCCCGGC TGATCTCAGC CCGAGGACAG CCCCTCCTTG AGGTCCCTTC TCCCCAAGCC 60
 CACCTGGGAG CCTCTTTTCT CCTGAGGCT CCACTTGGTC TCTCCGCGCA GCCTGCCCTG 120
 TGGCCACACC TGGCCGCTCT GGCTCTGCTG AGCAGCGTCG CAGAGGCTCT CCTGGGCTCC 180
 20 GCGCCCCGCA GCCCTGCCCC CCGCGAAGGC CCCCCTGCTG TCTGCGCTTC CCCCGCCGCG 240
 CACCTGCGCG GGGGACGACAC GGCCCGCTGG TGCAGTGGAA GAGCCCGCGG GCGCCGCGCG 300
 CAGCCCTCTC GCCCGCGGCC CCGCCGCTCT GCACCCCAT CTGCTCTTCC CCGCGCGGCG 360
 CGCGCGCGCG GCGCTGGGGG CCGCGGACAG CGGCTCGGG CAGCGCGGCG GCGGGGCTGC 420
 CGCTGCGCT CCGAGCTGGT GCGGTGCGCG GCGCTCGGCT TGGGCCACCG CTCCGACGAG 480
 25 TCGGTGGGT TCGCTTCTG CAGCGGCTCC TGCCGCGCG GCGCTCTTCC ACACGACCTC 540
 AGCTTGGCA GCTACTGGG GCGCGGGGCC CTGCGACCGC CCGCGGCTC CCGCCCGCTC 600
 AGCCAGCCCT GCTGCGGAC CAGCGGCTAC GAGCGGCTCT CCTTCATGGA CGTCAACAGC 660
 AOCCTGAGAA CCGTGGACCG CCTCTCGGCC AGCGCTGCG GCTGCGTGG CTGAGGGCTC 720
 GCTCCAGGCG TTTCAGACT GGACCTTAC CGGTGGCTCT TCTGCTTGG GACCTCCCG 780
 30 CAGAGTCCA CTAGCCAGCG GCTCAGCCA GGGACGAAG CCTCAAAGCT GAGAGGCCCC 840
 TACCGTGGG TGATGAGTAT CATCCCGAA CAGGTGAAG GACAACTGAC TAGCAGCCCC 900
 AGAGCCCTCA CCTGCGGAT CCCAGCCTAA AAGACACCG AGACCTCAGC TATGAGCCCC 960
 TTGAGACCA CTCTCAGAG ACTCTGACAC TGGCCAGGCC TCGAACCTGG GACCCCTCT 1020
 CTGATGAACA CTACAGTGGC TGAGGCATCA GCGCCCGGCC AGGCCCTGTA GGGACAGCAT 1080
 35 TTGAAGGACA CATATTGCAG TTGCTTGGTT GAAAGTGCCT GTGCTGGAAC TGGCTCTGAC 1140
 TCACTCATGG GAGCTGGCCC C

Seq ID NO: 406 Protein sequence
 Protein Accession #: NP_476501.1

1 11 21 31 41 51
 40 MPGLISARQQ PLLEVLPPQA HLGALFLPEA PLGLSAQPAL WPTLAALALL SEVABASLGS 60
 APRSDAPREG PPPVLASPAQ HLPGGRTARW CSGRARRPPF QPSPAPPPP APPSALPRGG 120
 45 RAARAGGPGS NARAAGARGC RLRSQIVFVR ALGLGHRSD LVRFRFCGSG CRRARSFPHL 180
 SLASLLGAGA LRPPGSRPV SQPCCRPTRY EAVSFMDVNS TWRTVDRLSA TACGCLG

Seq ID NO: 407 DNA sequence
 Nucleic Acid Accession #: NM_057090.1
 Coding sequence: 29..715

1 11 21 31 41 51
 50 CTGATGGGCG CTCTGGTGT TGATAGAGAT GGAACITGGA CTGAGAGGCC TCTCCAGCCT 60
 GTCCACATGC CCTTGGGCTA GCGCGCAGGC TCCACTTGGT CTCTCGCGCG AGCTGCCCCT 120
 55 GTGGCCACCC CTGGCCGCTC TGGCTCTGCT GAGCAGCGTC GCAGAGGCTT CCTTGGGCTC 180
 CGCGCCCGCG AGCCCTGCCC CCGCGAAGG CCCCCGCTT GTCTTGGCTT CCGCGCGCGG 240
 CCACCTGCGG GGGGAGAGCA CGGCCGCTG GTGCACTGGA AGAGCCCGGC GCGCCGCGCG 300
 GCGCTTCT CTGCGCCGCG CCGCGCGGCC TGCACCCDCA TCTGCTCTTC CCGCGCGGCG 360
 60 CCGCGCGCGG CGGCTGGGG GCGCGGCGAG CCGCGCTCGG GCAGCCGGGG CCGCGGCTG 420
 CGCGCTGCGC TCGCAGCTGG TGCGGCTGCG CGGCTCTGCG CTGGGCGACT GCTCCGACGA 480
 GCTGGTGGT TTCCGCTTCT GCGCGGCTC CTGCGCGCGG GCGCGCTCTC CACACGACCT 540
 CAGCTGGCC AGCTTACTGG GCGCGGGGG CCGCGGAGCG CCGCGCGGCT CCGCGCGGCT 600
 CAGCCAGGCC TGCTGCGGAC CACCGCGCTA CGAAGCGGTC TCTTTCATGG ACGTCAACAG 660
 65 CACCTGAGAA ACCGTGGAAC GCCTCTCCGC CACCGCTGCG GCTTCTTGG GCTGAGGGCT 720
 CGCTCCAGGG CTCTGCAAGC TGACCCCTTA CCGGTGGCTC TTCTGCTCG GAGCCCTCCC 780
 GCAGAGTCCC ACTAGCCAGC GCGCTCAGCC AGGGACGAAG GCTTCAAAGC TGAGAGGCCC 840
 CTACCGGTGG GTGATGGATA TCATCCCGA ACAGGTGAAG GGACAACTGA CTAGCAGCCC 900
 CAGAGCCCTC ACCCTGGGGA TCCAGCCCTA AAGACACCA GAGACCTCAG CTATGGAGCC 960
 70 CTTCGAGGCC ACTTCTCACA GACTCTGGCA CTGCGCAGGC CTCGAACTCG GAGCCCTCC 1020
 TCTGATGAAC ACTACAGTGG CTGAGGCATC AGCCCGCGCC CAGGCCCTGT AGGGACAGCA 1080
 TTTGAAGGAC ACATATTGCA GTTGGCTGGT TGAAAGTGCC TGTGCTGGAAC CTGGCTCTGA 1140
 CTCACTCATG GAGCTGGCCC CC

75 Seq ID NO: 408 Protein sequence
 Protein Accession #: NP_476431.1

1 11 21 31 41 51
 80 MELGLGLST LSHCPWPRRQ AFLGLSAQPA LNPPLAALAL LSSVABASLG SAPRSPAPRE 60
 GPPFVLASPA GHLPGGRTAR WCSGRARRPP PQSPRPAPPP PAPPASALPRG GRAARAGGPG 120
 SRARABARG CLRLSQLVFR RALGLGHRSD ELVRFRFCGSG SCRRARSFPH LSLASLLGAG 180
 ALRPPPGSRP VSQPCCRPTR YEAVSFMDVN STWRTVDRLS ATACGCLG

Seq ID NO: 409 DNA sequence
Nucleic Acid Accession #: Eos sequence
Coding sequence: 1..1746

| | | | | | | | |
|----|-------------|-------------|-------------|------------|-------------|-------------|------|
| 5 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | ATGCCACTGA | AGCATTATCT | CCTTTGTGCTG | GTGGGCTGCC | AAGCCTGGGG | TGCAGGGTTG | 60 |
| | GCCTACCATG | GCTGCCCTAG | CGAGTGTACC | TGCTCCAGGG | CCTCCCAGGT | GGAGTGCACC | 120 |
| | GGGGCAGGCA | TTGTGGCGGT | GCCCAACCCCT | CTGCCCTGGA | ACGCCATGAG | CCTGCAGATC | 180 |
| 10 | CTCAACACGC | ACATCACTGA | ACTCAATGAG | TCCCGTGTCC | TCAATATCTC | AGCCCTCATC | 240 |
| | GCCCTGAGGA | TTGAGAAGAA | TGAGCTGTGC | CGCATCAACG | CTGGGGCCTT | CCGAAACCTG | 300 |
| | GGCTGCTGCG | ACATCTCTAG | CCTGCCCAAC | AACAAGCTGC | AGGTTCTGCC | CATCGGCCCT | 360 |
| | TTCCAGGGCC | TGGACAGCCT | TGAGTCTCTC | CTTCTGTCCA | GTAAACAGCT | GTTCAGATC | 420 |
| | CAGCGCGGCC | ACTTCTCCCA | GTGCAGCAAC | CTCAAGGAGC | TGCAGTTGCA | CGGCAACCCAC | 480 |
| 15 | CTGGAAATACA | TCCCTGACGG | AGCCTTGAGC | CACCTGGTAG | GACTCAGGAA | GCTCAATCTG | 540 |
| | GGCAAGAATA | GCCTCACCCA | CATCTCACCC | AGGCTCTTCC | AGCACCTGGG | CAATCTCCAG | 600 |
| | GTCTTCCGCG | TGTATGAGAA | CAGGCTCAAG | GATATCCCCA | TGGGCACTTT | TGATGGGCTT | 660 |
| | GTTAACCTGC | AGGAACTGGC | TCTACAGCAG | AACCAAGATG | GACTGCTCTC | CCCTGGTCTC | 720 |
| | TTCCACAACA | ACCACAACCT | CCAGAGACTC | TACCTGTCCA | ACAACCCAT | CTCCAGCTG | 780 |
| 20 | CCACCCAGCA | TCTTCATGCA | GCTGCCCCAG | CTCAACCGTC | TTACTCTCTT | TGGGAATTCC | 840 |
| | CTGAAGGAGC | TCTCTCTGGG | GATCTTGGGG | CCCATGCCCA | ACCTGCGGGA | GCTTTGGGTC | 900 |
| | TATGACAACT | TGCCCTCTTC | TCTACCCGAC | AATGTCTTCA | GCAACCTCCG | CCAGTTGCGA | 960 |
| | GTCTGATTTC | TGAGCCGCAA | TGAGATCAGC | TTTCTCTCCC | CGGGTGCTTT | CAACGGGCTA | 1020 |
| | ACGGAGCTTC | GGGAGCTGTC | CCTCCACACC | AACGCACTGC | AGGACCTGGA | CGGGAATGTC | 1080 |
| 25 | TTCCGCATGT | TGGCCAACTT | GCAGAACATC | TCCCTGCAGA | ACAATCGCCT | CAGACAGCTC | 1140 |
| | CCAGGGAAAT | TCTTCCGCAA | CGTCAATGGC | CTCATGGCCA | TCCAGCTGCA | GAACAACCCAG | 1200 |
| | CTGGAGAACT | TGCCCTCTGG | CATCTTCAAT | CACCTGGGGA | AAGTGTGGA | GCTGCGGCTC | 1260 |
| | TATGACAATC | CCTGGAGGTG | TGACTCAGAC | ATCCTTCCGC | TCCGCACTG | GCTCCGCTC | 1320 |
| | AACCAAGCTA | GGTTAGGGAC | GGACACTGTA | CCTGTGTGTT | TAGCCCAAG | CAATGTCCGA | 1380 |
| 30 | GGCCAGTCCC | TCAATATCAT | CAATGTCAAC | GTGTCTGTTT | CAAGGTGCA | TGCTCCCTGAG | 1440 |
| | GTGCTAGTGT | ACCCAGAAAC | ACCATGGTAC | CCAGACACAC | CCAGTTACCC | TGACACCACA | 1500 |
| | TCCGTCTCTT | CTACCACTGA | GCTAACCAAG | CCTGTGGAAG | ACTACACTGA | TCTGACTACC | 1560 |
| | ATTCAAGTCA | CTGATGACCG | CAGGTTTGG | GGCATGACCC | AGGCCAGAG | CGGGCTGCCC | 1620 |
| | ATTGCCGCCA | TTGTAATTTG | CATTGTCCCC | CTGGCCTGCT | CCCTGGCTGC | CTGCGTGGCC | 1680 |
| 35 | TGTTGTCTGT | GCAAGAGAGG | GAGCCAAAGT | GTCTGTATGC | AGATGAAGGC | ACCCCAATGAG | 1740 |
| | TGTTAAGAGT | GCAGGCTGGA | GCAGGGCTGG | GGATGATGAG | GACTGGAGGA | CCTGGGAATT | 1800 |
| | TCTCTTTTCT | GGCTCCACCC | CTGGGTCCAT | GGAGCTTCCC | CGTGAATTGC | CTTTCTGGCC | 1860 |
| | CTAGATAAAG | GTGTGCTTAC | CTCTTCTGTA | CTTGCTGAT | TCTCCGCTAG | AGAAGCAGGT | 1920 |
| | CGTGCCGGAC | CTTCTTACAA | TCAGGAAGAT | AGATCCAAC | GGCCATGGCA | AAAGCCCTGG | 1980 |
| 40 | GGATTTCCGA | TTTATACCCC | TGGGCTTCTT | TGAGAGGGGC | TCTTCTTCCA | AATCTTCCCC | 2040 |
| | ACCTGTCTCT | CAGGAACAGC | CTTCCCTGGC | CCCAGGCCCC | CTCCGGGCTT | CTGTAGACTC | 2100 |
| | AGTTAGTCCA | CAGCCTGCTC | ACTTCTGGGG | AATAGTTCTC | CGCTGAGATA | GCCCTCTCTG | 2160 |
| | CCTAAGTATT | ATGTAAGTTG | ATTTCCCTTC | TTTGTGTTCT | CTGTGTTGAG | CTATGGCTTG | 2220 |
| | ACCCAGCATG | TCCCTCAAAA | TGAAGTTCT | CCCTGTGATT | TTCTGCTCTT | GAAGGCAGGG | 2280 |
| 45 | TGAATTCCTT | CCTCAAGAAA | GACTTCAAA | CATTAACTG | GTTTCTTAAG | AGCCGTCAAT | 2340 |
| | CAGCCTGGTT | TTGGGGATGC | TATGAAGAG | AGAAGGAAAA | TGATGCCGCT | CAGTTCCTGG | 2400 |
| | AGACAGAGAA | GGCGTCACTA | GTGTCTCACT | TGTGATTTTT | ATCTGGAAAA | GGAGGAAACA | 2460 |
| | CCCCAGACAA | GCAGCTCAG | CTTTTAGAG | AAGGATATTT | CCAAACTGCA | AATTTGCTTT | 2520 |
| | TGAAAAGTTT | AGCCCTTTAA | GGATGAAAT | CATGTAGAA | TTTGGACTTC | TAAAAACATT | 2580 |
| 50 | AAAATCAAGT | TATTAATACG | GGATAGAGAA | AGAAATCTGG | TGCCITGGGG | TCCCTGTGTT | 2640 |
| | CACCCCTAGA | GTTTGTTTTA | AAATTTTAA | TTGAAGCATG | TGAAGTGTAC | GTGCAGAAAA | 2700 |
| | GTGGGAACAT | GATAGTGAT | GGCTTGGTGG | ATTTTCACAA | ACTGAACATA | CCTGTGTGAT | 2760 |
| | CAGCATCTAG | ACCCAGACCC | AGAGCATCAC | AAATATCCCC | CATCCTGGGC | TTTTCCAGAA | 2820 |
| | GGAGATGGGG | GCTTCTTAAG | ATGCACTTAC | CTGGGACCTG | CCCCCATGGA | GCCAGGAGGG | 2880 |
| 55 | TCCCCCCACA | GTACGCTGT | GCAAGGGCCC | CGTGGCCAGG | GGTGGAGGAG | AATATGTGGG | 2940 |
| | TGTGGACAGG | ATGGGAGACT | GTGGCCTGAA | CAGGAGATTT | TATTTATATCT | GGAGACCTCT | 3000 |
| | AGAGACCCCT | AGACCTGGGG | CACCATGGCT | GGCCAGGTCA | GAAGCATCCT | GACTGCAGAG | 3060 |
| | GTCCGTGCGG | CCACACCTCT | TCCCTGCCA | GCAAGTTGTC | TGCGGCTCAT | CGGAGGCCCC | 3120 |
| | TCCGCTTGA | GCCCTCTATG | GACGTGATAT | GCCTGTATCT | GTTTTAAAT | TTTATCTTTC | 3180 |
| 60 | ACTTAGGGGA | AGTGAAATCG | CTCAGAGATG | AGATCCTTTA | ATTGAAAACG | AGCTGTAAAG | 3240 |
| | GAATCTAGTG | TCTTTCTAAT | GTGGTAAAT | TCTCCATCAA | CATCACAGTC | AGCTGGCAGC | 3300 |
| | TGAACCTCAG | AATCTCACTT | ACAGCAGGGG | ACACGGGGGT | ACACCBATGG | GTCACTCTGG | 3360 |
| | GTCTGGGGGC | TCCCTGGAGC | TCCCTCTGGG | TGTGGTCTGG | TGAGGAGTTG | AGTTGTTTGC | 3420 |
| | TCCAGGGTTA | TCTCTCTCTT | CBAGTCAACG | TCACAGGAAT | ACCTGCCCTC | TCTGGCTTTC | 3480 |
| 65 | CTGCTATACA | CATATTCAAC | TGGGCTTCAA | GAAGTTAGGC | TGATGGCAAC | GTGTGCTTTT | 3540 |
| | CTCTGGACAA | CTGGCCCACT | TTACAGTGAA | ATGGAGAAAT | TGAGGTCTCC | ACGTCTGCCC | 3600 |
| | AGGAAGAAGC | TTTACGCTGAC | TCCACGGGGA | TCTGGAAATC | CACGACCAAT | CCGATCGGCT | 3660 |
| | TCTTATTAGC | TCCCGCTTCC | ACAAGACACC | TGTGCTTTGG | AAATCCACCA | CCAATCCCGA | 3720 |
| | TCCGCTCTTA | TGAGCTCCCC | GCTCCACAG | ACACCTGTGA | TCTGGAAATC | TACCAACCAAT | 3780 |
| 70 | CCGATCGGC | TCTTATTAGC | TCCCGCTTCC | ACAGACACC | TGTGACATCC | TCCAGGCCCA | 3840 |
| | CAGGAGCAGG | TGCTGACCAAG | TTTTCCCTTC | CAGTTCTCTG | ACAAAAGTG | TCCAGAGGGC | 3900 |
| | TGTTTGCAAA | CATCTGAGCT | CTTTGTAGCT | TTTCAACCTC | TGTCCACGGG | AATCTAGGAG | 3960 |
| | AGATGAGGCC | CGTCAAGTTC | AAGAGATGTC | ATCCGCCAG | GGTCTCCAG | GCAATTTCCAC | 4020 |
| | ACTATTGGTG | GCACCTGGAG | GACATGCACC | AAGGCTTGCC | AGAGCCAAAC | GGAGTGAGC | 4080 |
| 75 | CCAGAGCATG | GCACATGAGC | ATCACCCGCT | GATGGTGGCC | TGCTGTGCTT | GGTCCCAACA | 4140 |
| | GGGGCATCCC | GGCCCTTACC | CCTCCAGACA | GGAGGATGAG | GTTTGCCCAT | AGACCTGTCT | 4200 |
| | GGTGTCTCTG | TGAGTGGCTT | CCAGATGTCT | TTGTGCATAG | GCACAGTGG | GGCAGGGCTG | 4260 |
| | GAGGGAGGTT | GGAAACCTCA | TGATCCGGTG | GGCCCTGCCA | ATCTTAACCT | AGAACCCCTA | 4320 |
| | GATATTCTCT | CGAGTAGCCA | TGACATTGGA | GCACCTTCTT | CTCCAGCCAG | AGGCTGACCT | 4380 |
| 80 | GAGGGCCACT | GTCTCTCAGT | GACACCAACC | AGGAGCACCC | TAGGTGAGGG | GTGAGGGCCC | 4440 |
| | CCTTATGTGA | ACCTCTTGCC | TCTTCTTCTC | TCCCATCAGA | GTGGTTGGAT | GGAGCCATTG | 4500 |
| | GGCTCTTTT | CTTCAGCGGG | CCCTTCAACC | TCTCTGCACC | ATGTTGTCTG | GCTGAGGAGC | 4560 |
| | TACTAGAAAA | GCTGAGTGGG | GTCTCTTCTC | CAACAGGATG | ATGCATTTGC | TCAATTCTCA | 4620 |
| | GGGCTGGAAT | GAGCCGGCTG | GTCCCCACGA | AAGCTGGAGT | GGGGTACAGA | GTTCAAGTTT | 4680 |

CCCTCTGTGT TACAGCTCCT TGACAGTCCC ACGCCCATCT GGAGTGGGAG CTGGGAGTTA 4740
 GTGTGGGAGA AGAAACACCA AAGGCCAATT AGAACCACCTA TTTTAAAAA GTGCTTACTG 4800
 TGACAGATA CYCTTCAAGC ACTGGAGGTG GATTCTCTCT CTAGCCCTCA GCACCCCTGC 4860
 5 GGTAGGAGTG CCGCTCTAC CCACITGTGA TGGGGTACAG AGGCACTTGC TCTTCGCAT 4920
 GGTGTTCAAT AGGCTGGGAG TTTTATTAT CTCTTCAAACT TTTGTACAG AGCTCATGGC 4980
 TTGTCTTGGG CTTTCTGTAT TAAACCAAG GAAATGGAAG CCATTCCTCT GTTGTCTTCC 5040
 TTAGTCTTGG TCATCAGAAC CTCACCTGGT ACCATATAGA TCAAAAGCTT TGTAAACCACA 5100
 GGAAAAATA AACTCTTCCA TCCCTTAAAG AATAGATAG TTTGTCCCTC TCATGGGAAT 5160
 10 TGGGCTGTAT GTATATTGTT CTTCCTCCTT AGAATTTAGA GATACAAGAG TTCTACTTAG 5220
 AACTTTTCAT GGACACAAAT TCCACACCTT TTCAGATGCT GATGTAGAGC TATTTGGGAAA 5280
 GAACCTCCAA ACTCAGGAAG TTTGCAGAGA GCAGACAGCT AGAGATAACT CGGACCCAG 5340
 AGTTGGTCTG CAGATGTAG ATGTATCCTA GCTTTTAGCC ATAAACCACT CAAAGATTCA 5400
 GCGCCAGAT CCCACAGTCA GAACGAATC TGCCTTGTG GGAAGCCAGC AGTGGCCTTG 5460
 15 GGAAGGAAGC CATGGCTGTG GTTCAGAGAG GGTGGGCTGG CAAGCCACTT CCGGGGAAA 5520
 TCTCTTCCGC CCCAGGTTTC TTCTTCTCT AAGGAGAGAT TGTTCCTACC AACCCGCTGC 5580
 CTTCATGCTG CTTTCAAGAG TAGATCATGT TTGCTTGTCT TAGAGAATTA CTGCAAAATCA 5640
 GCGCCAGTGC TTGGCGATGC ATTACAGAT TTCTAGGCC TCAGGGTTT GTAGAGTGTG 5700
 AGCCCTGGTG GCGAGGTTG GGGGCTCTGT CTTCTGTCTG ATGCTGCTTG TATTCATTT 5760
 20 GGTGTACAGA ATCAACAATA AATAATATAC ATGTAT

Seq ID NO: 410 Protein sequence

Protein Accession #: BAB84587.1

1 11 21 31 41 51
 | | | | |
 MFLEKEYLLLL VGCQAWAGL AYEGCPSECT CSRASQVECT GARIVAVPTP LEWNAMSLQI 60
 INTHITELNE SPFLINISALI ALRIEKNEIS RITPGAFRNL GSELYLSLAN NKLQVLPGL 120
 FQGLDSLESIL LLSNQQLLI QPAHFSQCSN LKELQLHGNH LEYIPDGAFD HLVGLTKLNL 180
 30 GKNSLTHISP RVQHLGNLQ VLRLYENRLT DIPMGTFDGL VNIQELALQ NQIGLLSPGL 240
 FHNENLQRL YLNNNHISQL PPSIFMQLPO LNRLLPLGNS LKELSLGIFG PMPNLRRLNL 300
 YNHHISLEPD NVPSNLRQLQ VLILSRNQIS FISPGAFMGL TELRELSLHT NALQDLGDNV 360
 FEMLANLQNI SLQNNLRQL PGNIFANVNG LMAIQLQNNQ LENLPLGIFD HLGKLCLERL 420
 YDNPRCDSL ILPLRWLLL NQPRLGTDIV PUCFSPANVR GQSLIINVN VAVPSVHVPE 480
 35 VPSYPETFWY PUPSPYDDT SVSSTTELTS PVEDYIDLTT IQVTDRESVH GMTQAQSGLA 540
 IAAIVIGIVA LACSLAACVG CCCCRRSQ VLMQKAFNE C

Seq ID NO: 411 DNA sequence

Nucleic Acid Accession #: XM_098151

Coding sequence: 1..447

1 11 21 31 41 51
 | | | | |
 ATGATGCATT TGCTCAATTC TCAGGGCTGG AATGAGCCGG CTGGTCCCCC AGAAAGCTGG 60
 45 AGTGGGGTAC AGAGTTCAGT TTTCTCTCT GTTACAGCT CCTTGACAGT CCCACGCCCA 120
 TCTGGAGTGG GAGCTGGGAG TCAGTGTGG AGAAGAAACA ACARAAGCCA ATTAGAACCA 180
 CTATTTTAA AAGATGCTTA CTGTGCACAG ATACTCTTCA AGCACTGGAC GTGGATTCTC 240
 TCTCTAGCCC TCAGCACCCC TGGGTAGGA GTGCCGCCCTC TACCCACTTG TSATGGGGTA 300
 CAGAGGCAC TGCCTCTCTG CARGGTGTC AATAGGCTGG GAGTTTATT TATCTCTTCA 360
 50 AACTTTGTAC AAGAGCTCAT GGCTTGTCTT GGCCTTCTGT CATTAAACCA AAGGAAATGG 420
 AAGCATTTCC CTTGTGTGCT TCCTTAG

Seq ID NO: 412 Protein sequence

Protein Accession #: XP_098151

1 11 21 31 41 51
 | | | | |
 MMHLNSQGW NEPAQPPSW SGVQSSVFLS VYBSLTVPRP SGVGAGSQCN RNNKSQLPEP 60
 LFLKSAVCAQ ILFKHWITWL SLALSTPAVG VPPLPTCDGV QRHLLEFCWVF NRIAGVLFISS 120
 60 NFVQELMACL GLSSLNQRKW KPPFCCSP

Seq ID NO: 413 DNA sequence

Nucleic Acid Accession #: NM_002658.1

Coding sequence: 77..1372

1 11 21 31 41 51
 | | | | |
 GTCCCGCAG CCGGCTCGCG CCTTCTGCCC GCAGGCCACC GAGGCGGCCG CCGTCTAGCG 60
 CCCCGACCTC GCCACCATGA GAGCCCTGCT GGCGCGCCTG CTCTCTGCG TCTTGGTGGT 120
 70 GAGGACTCC AAGGCAGCA ATGAATCTCA TCAAGTTCCA TCGAAGCTGG ACTGTCTAAA 180
 TGGAGGAACA TGTGTGTCCA ACAAGTACTT CTCCACATT CACTGGTGCA ACTGCCCAA 240
 GAAATTCGGA GGGCAGCACT GTGAATAGA TAAGTCAAAA ACCTGCTATG AGGGGAATGG 300
 TCACCTTTAC CAGGGAAGG CCAGCACTGA CACCATGGGC CGGCCCTGCC TGCCCTGGAA 360
 CTCGTCCACT GTCTTTCAGC AAACGTACCA TGCCACAGA TCTGATGCTC TTCAGCTGGG 420
 CCTGGGGAAA CATAATTA CTGAGGAACC AGACAACCGG AGGCGACCTT GGTGCTATGT 480
 75 GCAGGTGGGC CTAAAGCCGC TTGTCCAAGA GTGCATGGTG CATGACTGCG CAGATGGAAA 540
 AAGGCCCTCC TCTCTCCAG AAGAATTAAA ATTTCAAGTG GCCCAAAAGA CTCTGAGGCC 600
 CGCTTTAAG ATTATTGGGG GAGAATTAC CACCATCGAG AACCAACCTT GGTTTGCGGC 660
 CATCTACAGG AGGCACCGGG GGGGCTCTGT CACTTACGAG TGTGGAGGCA GCCTCATCAG 720
 CCTTGTCTGG GTGATCAGC CCACACACTG CTTATTGAT TACCCAAAGA AGGAGGACTA 780
 80 CATGCTCTAC CTGGGTGCT CRAAGCTTAA CTCCACACG CAAGGGGAGA TGAAGTTTGA 840
 GGTGGAACA CTGATCTTAC ACAAGGACTA CAGCGCTGAC AGCTTGTCT ACCACAACGA 900
 CATGCGCTTG CTGAAGATCC GTTCCAAGGA GGGCAGGTGT GCGCAGCCAT CCGGACTAT 960
 ACAGACCATC TGCCCTGCCCT CGATGTATAA CGATCCCCAG TTGGGACAAA GCTGTGAGAT 1020
 CACTGGCTTT GGAAGAGAGA ATTCTACCGA CTATCTCTAT CCGGAGCAGC TGAATATGAC 1080

5 TTTTGTGAAG CTGATTTCOC ACCGGGAGTG TCAGCAGCCC CACTACTACG GCTCTGAAGT 1140
 CACCACCAA ATGCTATGTG CTGCTGACCC CCAATGGAAA ACAGATTCTT GCCAGGGAGA 1200
 CTCAGGGGGA CCCCTCGTCT GTTCCCTCCA AGGCCGCGATG ACTTTGACTG GAATTGTGAG 1260
 CTGAGGCGGT GGAATGTGCCC TGAAGGACAA GCCAGGCGTG TACACGAGAG TCTCACACTT 1320
 CTACCTCTGG ATCCGCGATC ACACCAAGGA AGAGAAATGSC CTGCGCCCTCT GAGGGTCCCC 1380
 AGGGAGGAAA CCGGCACAC CCGCTTCTT GCTGGTTGTC ATTTTTCGAG TAGAGTCATC 1440
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 10 TGTCCTTTTC TGGACTGAAG CCTGCAGGAG TTAATAAGGG CAGGGCTCTT CCTGTGCATG 1680
 GGCTCGAAGG GAGAGCCAGC TCCCCGACG GGTGGGCATT TGTGAGGCC ATGGTTGAGA 1740
 AATGATAAAT TTCCAATTA GGAAGGTAA GCAGCTGAGG TCTCTGAGG GAGCTTAGCC 1800
 AATGTGGAG CAGCGTTTG GGGAGCAGAG AACTAACGA CTTCAGGCA GGGCTCTGAT 1860
 15 ATTCATGAA TGTATCAGGA AATATATATG TGTGTGTATG TTTGCACACT TGTGTGTGG 1920
 GCTGTGAGT TAAGTGTGAG TAAGAGCTGG TGCTGATTG TTAAGTCTAA ATATTTCTT 1980
 AAACTGTGT GACTGTGATG CCACACAGAG TGGTCTTCT GGAGAGGTTA TAGGTCACTC 2040
 CTGGGGCCTG TTGGGTCCCC CAGGTGACAG TGCTGGGAA TGTACTTATT CTGACAGCATG 2100
 ACCGTGACG AGCACTGTCT CAGTTTCACT TTCACATAGA TGTCCCTTTC TTGCGCAGTT 2160
 20 ATCCCTTCCT TTTAGCCTAG TTCATCCAAT CCTCACTGGG TGGGGTGAGG ACCACTCTT 2220
 ACACGAAATA TTTATATTTC ACTATTTTTA TTTATATTTT TGTAAATTTA AATAAAGTG 2280
 ATCAATAAAA TGTGATTTT CTGA

Seq ID NO: 414 Protein sequence
Protein Accession #: NP_002649.1

25 1 11 21 31 41 51
 MRALLARLLL CVLVVSDSKG SNELHQVPSN CDCINGGTCV SNKYFSNIHW CNCPKFGGQ 60
 HCEIDKSKRT YEGNGHYFRG KASTDTMRP CLPWN SATVL QQTYHAHRED ALQLGLQKH 120
 30 YCRNEDMRER FWYQVQVGLK PLVQECMVHD CADGKPSSE PSELKPQCG KTLRPRFKII 180
 GGEFTTIENQ FWFPAIYRRH RGSVTVYVCG GSLISPCNVI SATHCFIDYP KKEYDIYVLG 240
 RSRNLSNTQG EKFPEVENLI LHKDYSADTL AHNDIALLLK IRSKSGRCAG PSRTIQTICL 300
 PSMXNDPQFG TSCBETGFGK ENSTDVLYPE QLKMTIVKLI SHRECOQPHY YGSEVTTKML 360
 35 CAADPQMKTD SCQDSGGPL VCSLQGRMTL TGIVSWGRGC ALXDKPGVTT RVSHFLPWIR 420
 SHTKEENGLA L

Seq ID NO: 415 DNA sequence
Nucleic Acid Accession #: NM_024422.1
Coding sequence: 202..2907

40 1 11 21 31 41 51
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 45 GCTCGGCGCG CCGCCCTGCG CCGCGGAGC CCGCTCTACCC CCGCGCGAGC CTCGCGCGCGC 180
 GACCTGCGCC GAGCCCTCTC CATGAGAGCA GCGCGCCCTC CCGCTCTCTG GAACGGAGCC 240
 CTCTCGCGCG CTCTCTCTCT GACCTCTGCG ATCTTAATAT TTGCCAGTGA TGCCCTGCAA 300
 AATGTGACAT TACATGTTCC CTCCAAATA GATGCGAGA AACTTGTGTT TAGAGTTAAC 360
 50 CTGAAGAGGT GCTTTACAGC TGCAAACTCTA ATTCTATTCA GTGATCTCTG CTCCAAATT 420
 TTGGAGGATG GTTCAGTCTA TACAACAAT ACTATTCTAT TGCTCTGGA GAAGAGAGAT 480
 TTTACCATAT TACTTTCCAA CACTGAGAAC CAAGAAAAGA AGAAAATATT TGCTTTTGTG 540
 GAGCATCAA CAAGGCTCTT AAAGAAAAGA CATACTAAG AAAAGTTCTT AAGCGCGCGC 600
 AAGAGAGATG GGGCTCCAT TCTTGTGCG ATGCTAGAAA ACTCTTGGG TCCTTTTCCA 660
 55 CTTTCTCTTC AACAGGTTCA ATCTGACAG GCCCAAACT ATACCTATA CTATTCATA 720
 AGAGGTCCTG GAGTTGACCA AGAACCTCGG AATTTATTTT ATGTGGAGAG AGACACTGGA 780
 AACTGTGATT GTACTGTGCT TGTAGATGCT GAGCAGTATG AATCTTTTGA GATAATTGCC 840
 TTTGCAACAA CTCAGATGG GATACTTCCA GAACCTCCAC TGCCCTTAAT AATCAAAATA 900
 GAGGATGAAA ATGATAACTA CCAATTTTTT ACAGAGAAA CTTTACTTTT TACAATTTTT 960
 60 GAAAATTGCA GAGTGGGCAC TACTGTGGGA CAAGTGTGTG CTACTGACAA AGATGAGCCF 1020
 GACACGATGC ACACACGCTT GAAGTACTCC ATCATTTGGC AGGTGCCACC ATCACCACCT 1080
 CTATTTTCTA TGCACTCCAC TACAGGCGTG ATCACCACAA CATCATCTCA GCTAGACAGA 1140
 GAGTTAATTG ACAAGTACCA GTTGAAAATA AAGTACAAAG ACATGATGG TCAGTATTTT 1200
 GGTCTACAGA CAATCTCAAC TTGTATCATT AACATTGATG ATGTAATGA CCAGTTGCCA 1260
 65 ACATTTACTC GTACTTCTTA TGTGACATCA GTGAAGAAA ATACAGTTGA TGTGGAATC 1320
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 ACCATTTTAA AGGCAATGA AAATGCGAAT TTTAAAATTG TAACAGATGC CAAGACCAAT 1440
 GAAGGAGTTT TTTGTGAGT TAAGCCTTTG AATTATGAAG AAAAGCAACA GATGATCTTG 1500
 CAAATTGGTG TATTAATGA AGCTCCATTT TCCAGAGAGG CTAGTCCAAG ATCAGCCATG 1560
 70 AGCACAGCAA CAGTTACTGT TAATGTAGAA GATCAGGATG AGGGCCCTGA GTGTAACCTT 1620
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 75 CAAGGAGGGA GAACATGTAC GGGGACACTG GGCATTATAC TTCAAGACGT GAATGATAAC 1920
 AGCCCATTTA TACCTAAAAA GACAGTGATC ATCTGCAAC CCACCATGTC ATCTGCGGAG 1980
 ATTGTTGCGG TTGATCCTGA TGAGCCTATC CATGGCCAC CTTTGTACTT TAGTCTGGAG 2040
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 80 GATAGACTTG GCATGCTAG GTTCACTTCA TTGATGTTA CACTGTGTGA CTGCAATACC 2220
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TCAGGAATCA AAAACGGAGG TCAGGAGACC ATCGAAATGG TGAAGGAGG ACACCAGACC 2580
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 GAACGACAAG AAGAAGATGG GCTTGAATTT TTGGATAATT TGGAGCCCAA ATTTAGGACA 2880
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 TTTATGACIT TTAATAAAAA TTACAAACCA AGAATTTTTT AAAGCAGAAG ATGCTATTTG 3000
 TGGGGGTTTT TCTCTCATT TTTGGATGGA ATCTCTTTGG TCAATGCAC ATTTACAGAG 3060
 AGACACTATA AACAAATPACA CAAATTTTTC AATTTTTCAC TATTTTAAAA TTACTTATCT 3120
 TCTATCCAAAG GAGGTCTTACA GAGAAATTAAG AGTCTGCCCT ATTTGTGTACA TTGGGTATATA 3180
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 TATTTGAAGC ACAACCTAAT GGAATAATGT AGAGACCTTG CTTTAACATT ATCTCCAGTT 3300
 AATTAAGTGT TCATGTGAGT CTTGGAAACT GTTGTTTTCC TGAACATCTA AAGTGTGTAG 3360
 ACTGCATCTT TGATATTATT TTATCTTGT AATGTGACCT TTTCACTGTG CAAAGGGAGA 3420
 TTTCTAGCCA GGCATTGACT ATTACAATTT CATT

Seq ID NO: 416 Protein sequence
 Protein Accession #: NP_077740.1

1 11 21 31 41 51
 MEAARPSGSH NGALCRLLLL TLAILIFASD ACKNVTILHVP SKLDAEKLVG RVNLKECFTA 60
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 KKRHTKEKYL RRARRRWAPI PCSMLENSLG PPFLFLQVQV SDTAQNYTYY YSIRGPGVDQ 180
 EPRNLFYVER DYNLYCYTRP VDRBQYESPE ILAFATTFDG YTFELPLPLI IKIEDENDNY 240
 PIPTRETYIF TIFENCRTGT TVGQVCATDK DEPDTHTRL KYSLIQVPP SPFLFPMHPT 300
 TGVITTTSSQ LDRELIDKYQ LKIKVQDMOG QYFGLQTTST CIINIDVDND HLPFTFRTSY 360
 VTSVEENTVD VEILRVTVSD KDLVNTANWR ANYTILKNE KGNPKIVTDA KTNESVLCVV 420
 KPLNYEKKQQ MTLQIGVVNE APFSREASPR SAMSTATVY NVEDQDEGPE CNPPIQTVRM 480
 KENAVGTTTS NGYKAYDPET RSSSGIRYKK LTDEPTGNVTI DENTGSIKVF RSLDREARTI 540
 KNGIYNITVL ASDQGGRTCT GTLGIILQDV NDNPPFIPKK TVIICKPIWS SAEIVAVDDP 600
 EPIHGPFFDF SLESSTSEVQ RMWRLKAIND TARELSYOND PPFSGYVVP I TVRDLQWSS 660
 VTSLDVTLCD CITENDCTHR VDFRIGGGGV QLGKWAIIAI LLGIALLP I LFTLVCGASG 720
 TSQPKVIPD DLAQQLIVS NTEAPGDDKV YSANGFTTQT VGASAGGVCG TVGSGIKNGG 780
 QETLEWVKGH HQTSSECRGA GHHTLDSCR GGHTEVINC R YTYSEWHSPT QPRLGEKVYL 840
 CNQDENHKEA QDIVLYTNYE GRGSVAGSVG CCSERQEEDG LEFLDNLEPK FRTLAEACMK 900
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Seq ID NO: 417 DNA sequence
 Nucleic Acid Accession #: NM_004949.1
 Coding sequence: 202..2745

1 11 21 31 41 51
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 GACTTCGCCC GAGCCCTCTC CATGGAGGCA GCCCGCCCTT CCGGCTCTCT GAACGGAGCT 240
 CTCTCCGGGC TGCTCTCGCT GACCTCGCG ATCTTAATAT TTGGCAGTGA TGCCTGCAAA 300
 AATGTGACAT TACATGTTC CTCCAAATA GATGCGGAGA AACTTGTGTG TAGAGTTAAC 360
 CTGAAAGAGT GCTTTACAGC TGCAAAATCT ATTCAATCAA GTGATCTGTA CTTCCAAATT 420
 TTGGAGGATG GTTCAGTCTA TACAACAAT ACTATTCTAT TGCTCTCGGA GAAGAGAGAT 480
 TTTACCATAT TACTTTCCAA CACTGAGAAC CAGAAAAGA AGAAAATATT TGTCTTTTG 540
 GAGCATCAAA CAAAGGTCTT AAAGAAAAGA CATACTAAAG AAAAAGTTCT AAGGGCGGCC 600
 AAGAGAAGAT GGGCTCCAAT TCCTTGTTCG ATGCTAGAAA ACTCCTTGGG TCCTTTTCCA 660
 CTTTTCCTTC AACAGGTCTA ATCTGACAGC GCCCAAAT ATACCATATA CTATTCCATA 720
 AGAGGTCTCT GAGTTGACCA AGAACCTCGG AATTATTTT ATGTGGAGAG AGACACTGGA 780
 AACTTGTATT GTACTCGTCC TGTAGATCTT GAGCAGTATG AATCTTTTGA GATAATTGCC 840
 TTTGCAACAA CTCAGATGG GTATACTCCA GAACCTCCAC TGCCCTTAAT AATCAAAATA 900
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 GGTCTACAGA CAATCTCAAC TTGTATCATT AACATTGATG ATGTAAATGA CCCTTGCCA 1260
 ACATTTACTC GTACTCTTTA TGTGACATCA GTGGAAGAAA ATACAGTTGA TGTGGAAATC 1320
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 GAAGGAGTTC TTTGTGTAGT TAAGCCTTTG AATTAATGAG AAAAGCACA GATGATCTTG 1500
 CAAATTTGAT TAGTTAATGA AGCTCCATTT TCAGAGAGG CTAGTCCAG ATCAGCCATG 1560
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 CCAATACAGA CTGTTGCGAT GAAAGAAAAT GCAGAGTGG GAACAACAG CAATGGATAT 1680
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 CAGGAGGGGA CAGCATGTAC GGGGACACTG GGCATTATAC TTCAAGACGT GAATGATAAC 1920
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 ATTGTTCCGG TTGATCCTGA TGAGCCTATC CATGGCCAC CCTTTGACTT TAGTCTGGAG 2040
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 TCGGAATCCT GCGGGGGGGC TGGCCACCAT CACACCCTGG ACTCCTGCAG GGGAGGACAC 2640
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 CTATGAAGGA AGAGGATCGG TGGCTGGGTC TGTAGGTGTG TGCAGTGAAC GACAGAAGA 2880
 AGATGGGCTT GAATTTTGG AIAATTTGGA GCCCAATTT AGGACACTAG CAGAAGCATG 2940
 CATGAAGAGA TGAGTGTGTT CTAATAAGTC TCTGAAGCC AGTGGCTTA TGACTTTTAA 3000
 AAAAAATTAC AAACCAAGAA TTTTAAANG CAGAAGATGC TATTGTGGG GGTTTTCTC 3060
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 CCTAATGGA AATTGTAGAG ACCTTGCCTT AACATTATCT CCAGTAAAT AAGTGTTCAT 3360
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 ATTATTTTAT TCTTGAATG TGACCTTTC ACTGTGCAA GGGAGATTTC TAGCCAGGCA 3480
 TTGACTATTA CAATTTCATT

Seq ID NO: 418 Protein sequence
 Protein Accession #: NP_004940.1

1 11 21 31 41 51
 MEAARPSGSW NGALCRLLLL TLAILIFASD ACKNVTILHP SKLDAEKLVG RVNLKECFIA 60
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 KRRTKEKVL RRAKRWAPI PCSMLENSLG PPLFLQVQV SDTAQNYTII YSIRGPVVDQ 180
 EPRNLFYVER DTANLYCTRP VDREQYSESP IIAFAITPDG YTFELPLFI IKIEDENDNY 240
 RIFTEBYTFE TIFENCVRGT TVGQVCATDK DEPDTHMRL KYSLIGQVFP SPTLFMHPFT 300
 TGVITTTBSQ LDRELIDKXQ LKIKVQMDQ QYFGLQTTST CIINIDVDND HLPTFTRTSY 360
 VTSVEENTVD VEILRVTVED KDLVNTANWE ANYTILKNE NGNFKIVIDA KINBOVLGVV 420
 KPLNYEERQO MILQIGVNE APFSREASPR SAMSTATVTV NVEDQDEGPE CNPPIQTVRM 480
 KENAEVGTIS NGKAYDPET RSSSGIRYKK LTDPTGWVTI DENTGSIKVF RSLDREASTI 540
 RNGIYNTIVL ASQGGGTCTI GTLGILQDV NDNPPFIPKK TVIICKPTMS SAEIVAVDPD 600
 EPIHGPPDFE SLESSTSEVF RMWRKAIND TAARLSYQND PPFSGYVUPI TVRDLGMSS 660
 VTSLDVTLCD CTIENDCTHR VDPRIQGGGV QLGKQALLAI LLGIALLPFI LFTLVCGASG 720
 TSEQPKVIPD DLAQQLNIVS NTEAPGDDKV YSANGFTTQT VGASAGGVCG TVSGIKNGG 780
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 GHTLIEN

Seq ID NO: 419 DNA sequence
 Nucleic Acid Accession #: NM_002722.1
 Coding sequence: 14..301

1 11 21 31 41 51
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 ACCGAGGGGA CAATGCCACA CCAGAGCAGA TGGCCAGTA TGCAGCTGAT CTCCTAGAT 180
 ACATCACAT CTTAGACAGG CTTAGGTATG GGAAAGACA CAAGAGAGAC AGCTGGCCTC 240
 TCTCGAGTG GGGGTCCCGG CATGCTGCTG TCCCCAGGGA GCTCAGCCCG CTGGACTTAT 300
 AATGCCACTT TCTGTCTCTT ACGACTCCAT GAGCAGCGCC AGCCCACTC TCCCTCTGCT 360
 ACCCTGGCT CTGGCCAAAG CTGTCTCCTT GCTCCACAC AGGCTCAATA AAGCAGTCA 420
 AAGCC

Seq ID NO: 420 Protein sequence
 Protein Accession #: NP_002713.1

1 11 21 31 41 51
 MAAARLCLSL LLLSTCVALL LQPLLGAQGA PLSPVYPGDM ATPQMAQYA ADLRRYINML 60
 TRPRYGRHK EPTLAFSENG SPHAAVPREL SPIDL

Seq ID NO: 421 DNA sequence
 Nucleic Acid Accession #: NM_032545.1
 Coding sequence: 46..718

1 11 21 31 41 51
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 CTATCAAGA GAGAAACATA ACGGCGGTAG AGAGGAGATC ACCAAGGTTG CCACTCAGAA 180
 GCACCGACAG TCACCGCTCA ACTGGACCTC CAGTCRTTTC GGAGAGGTGA CTGGGAGCGC 240
 CGAGGGGCTGG GGGCGGAGG AGCGCTCTCC CTACTCCCGG GCTTTGCGAG AGGGTGCCTC 300
 CGCGGGGCGG CGCTGCTGCA GGAACGGCGG TACCTGCGTG CTGGGCGACT TCTGCGTGTG 360
 CCGGCGCCAC TTCACCGGCC GCTACTGCGA GCATGACCA AGCGCGAGTG AATGCGGCGC 420
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 CCTGCACATC CTCCCTCTCT AGACGCTTGA CCGCTGTGAC CCGAAAGACT TCCTGGGCTC 540
 CCACTCTCAC GGGCGGAGG CGCGGGGCGC GCGGAGCTG CTACTCTGCT TGCCTGCGC 600
 ACTCTGACAC GCGCTCTGCT GCGGAGATGC GCGGCGCAC CTTGCTGCTC TGGTCCCTTC 660
 CGTCTCCAG CCGGAGCGGC GCGCTGCGG AAGGCGGGA CTGGGCACT GCCTTTAATT 720
 TCTATGTTG TAAATAATAG ATGTGTTTAG TTTACGGTAA GCTGAAGCAC TGGGTGAATA 780

TTTTATTGG GTAATAAATA TTTTCATGAA AGCGCCAAAA AAAAAAAAAA AAAAAAAAAA 840
AAAAAA

Seq ID NO: 422 Protein sequence
Protein Accession #: NP_115934.1

1 11 21 31 41 51
| | | | |
MTWRHVRLL FTVSLALQII NLGNSYQREK HNGGREEVTK VATQKHRQSP LNWTSSEFGE 60
VTGSAEGWGP EEPLPYSRF GEGASARPRC CINGGTCVLG SFCVCPAHT GRVCEHDQRR 120
SEOGALEHGA WTLRACHLCR CTFGLHCLP LQTPDRCDPK DFLASHARGP SAGGAPSLJL 180
LLPCALLHRL LRPDAPAFPR SLVPSVLQRE RRPGRPSLG HRL

Seq ID NO: 423 DNA sequence
Nucleic Acid Accession #: NM_006533.1
Coding sequence: 72..467

1 11 21 31 41 51
| | | | |
AGGGAGAGAG GGAGGGGAGG AATTTGGAGA CCCAGCACC CCTTGCTCA CTCTCTTGCT 60
CACAGTCCAC GATGCCCCGG TCCCTGGTGT GCCTTGGTGT CATCATCTTG CTGTCTGCCT 120
TCTCCGACC GTGTCACGG GGTGGTCTTA TGCCCAAGCT GGTGACCGG AAGCTGTGTG 180
CGGACCCAGG GTGCAGCCAC CCTATCTCCA TGGCTGTGGC CCTTCAGGAC TACATGGCCC 240
CGGACTCGCG ATTCTGACCC ATTCACCGGG GCCAAGTGGT GTATGTCTTC TCCAAGCTGA 300
AGGGCCGTGG GCGGCTCTTC TGGGGAGGCA GCGTTCAGGG AGATTACTAT GGAGATCTGG 360
CTGCTCGCCT GGGCTATTTC CCCAGTAGCA TTGTCCGAGA GGACCAGACC CTGAACCTG 420
GCAAGTCTGA TGTGAAGACA GACAAATGGG ATTTCTACTG CCAGTGAGCT CAGCCTACCG 480
CTGGCCCTGC GCTTTCCTCT CCTTGGGTTT ATGCAATATC AATCAGCCCA GTGCAAAC

Seq ID NO: 424 Protein sequence
Protein Accession #: NP_006524.1

1 11 21 31 41 51
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MARSLVCLGV ILLLSAFSGP GVRGGEMPKL ADRKLCADQE CSHPISMAVA LQDYMAPDCR 60
FLTIHRGQV YVFSKLGKRG RLPWGGSVQG DYXEDLAARL GYPPSSIVRE DQTLKPGKVD 120
VKTKMDFYC Q

Seq ID NO: 425 DNA sequence
Nucleic Acid Accession #: NM_080870.1
Coding sequence: 3..710

1 11 21 31 41 51
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AGAAACCCAC AAGAACCCCA GAAAGCCCTA CGCTATACTC AGAGAAGACC ATATGCACCA 120
AAGGGAAGAA CACACCACTC CCAGAAAAGC CTACAGAAAA CCTGGGGAAC ACCCACCTGA 180
CCACTGAGAC CATAAAGACC CCAGTAAAGT CCACAGAAAA CCCAGAAAA ACAGCAGCAG 240
TCACAAAGAC TATAAAACCT TCAGTCAAGG TCACAGGAGA CAAATCTCTC ACTACTACTC 300
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Seq ID NO: 426 Protein sequence
Protein Accession #: NP_543146.1

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Seq ID NO: 427 DNA sequence

Nucleic Acid Accession #: XM_069480.1

Coding sequence: 1..4383

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Seq ID NO: 428 Protein sequence
Protein Accession #: XP_069480.1

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Seq ID NO: 429 DNA sequence
Nucleic Acid Accession #: FGENESH predicted
Coding sequence: 1..10674

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| | GCTAACAGTT | CTTGGAGTCA | TTCCCTCTCT | GTGTGTGAAC | CAGTGAAGTG | TTCTAGTCCG | 5700 |
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| | TGCAGAAGAG | GCTATACTCT | TGCTGGTCTT | GACACCATTG | AATGCTTGGC | CGACGGCAAG | 6000 |
| 55 | TGGAGTAGAA | GTGACCAAGCA | GTGCTTGGCT | GTCTCTGTG | ATGAGCCACC | CATGTGGGAC | 6060 |
| | CACGCTCTCT | CACAGACTGC | CCATCGGCTC | TTTGGAGACA | TTGCTATTCTA | CTACTGCTCT | 6120 |
| | GATGGTTACA | GCTTAGCAGA | CAATTCOCAG | CTTCTCTGCA | ATGCCACAGG | CAGTGGGTGA | 6180 |
| | CCCCCAAGAG | GTCAAGACAT | GGCCGTTGT | ATAGCTCAIT | TCGTGAAAAA | ACCTCCATCG | 6240 |
| | GTTCCTTATA | GCATCTTGGG | ATCTGTGAGC | AAAGCAAAAT | TTGCAGCTGG | CTCAGTTGTG | 6300 |
| | AGCTTTAAAT | GCATGGAAGG | CTTTGTACTG | AAACCTTCAG | CAAGATTGA | ATGTATGAGA | 6360 |
| 60 | GGTGGGCACT | GGAAOCCTTC | CCCCATGTCC | ATCCAGTGCA | TCCTGTGTGG | GTGTGGAGAG | 6420 |
| | CCACCAAGCA | TCTATGAATG | CTATGCAAGT | GGATCAAACT | ACAGTTTGGG | AGCCATGGTG | 6480 |
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| | TTCTGTAAATG | AGGGTTATGA | GCTTGTGGT | GACAGTTCTT | GGACATGTCA | GAATCTGGC | 6900 |
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| | GTAGGTGGGT | TTTTCTTAAG | AGGAAATTC | ACCACCTCT | GCCAACCTGA | TGGCACTTGG | 7260 |
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| | CGGCTCGAAG | GTCCCACTGC | CTTGAACCTGT | TTAGAGACAG | GTGATTGGGA | TGTAGATGCC | 7620 |
| | CCATCTTGCA | ATGCCATCCA | CTGTGATTCC | CCACAACCCA | TGGAARAATGG | TTTTGTAGAA | 7680 |
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 Protein Accession #: PGENESH predicted

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 CATCTCTCA CATAATGGAA AACATTTACA TCAAAATCCA CTACTTTAA TGGCAACTTG 4440
 GAGATAATT ATGTATTTGT ATTTAAACC ATTAATGAAA ACTTTTTTAC AGTTGAGTGA 4500
 AATTAAATC ATATATCTC

Seq ID NO: 434 Protein sequence
 Protein Accession #: NP_009162.1

55
 60
 65

1 11 21 31 41 51
 MDKLEKCSFF KCRBKKEKVA SSENPHVGN DENQDEGNWS KRSDYLLEMI GYAVGLGNVW 60
 RFPYLYTNG GGAFLIEYAI MLALAGLPF FLECSLGQFA SLGPVSVWRI LPLPQGVGIT 120
 MVLISIFVTI YVNVIIAYSL YNMFASFQSE LFWKNCSSWS DKNCBSRPV THCNVSTVMK 180
 GIQEIIMNK SWVDINMFTC INGSEITQPG QLPSEQYWNK VALQRSSGMN EKGIVVWYLA 240
 LCLLLAWLIV GAALFKGIKS SGKVVFYFAL FFFVVLILL VRGATLEBAS KGISVYIGAQ 300
 SNFTKLKAE VMDAATQIF YLSLVAVGGL VALSSYNKFK NNCPSDAIV CLTNCLTSVF 360
 AGFAIFSLG HMAHISKEV SQVVKSGEDL AFIAYPEALA QLPQGPFWSI LFFFLMLTLG 420
 LDSQFASIE ITTTIQDLFP KVMKQRPVI TLECCLVLEF LGLVCVTQAG IYWVHLIDHF 480
 CAGWGLILAA ILEIVGIIWI YGGRPIEDT EMMIGAKRMI FWLWWRACNF VITPILLIAI 540
 FWSLVQFHR FNYGAIPYPD NGVALGWCM VFCIWIPIPI AIKIIQAKG NIFQRLISCC 600
 RPASNWGPYL EQHGERYKD MVDPRKEDR EIPTVSGSRK PE

70
 Seq ID NO: 435 DNA sequence
 Nucleic Acid Accession #: M18728.1
 Coding sequence: 51..1085

75
 80

1 11 21 31 41 51
 GGAGCTCAAG CTCCTCTACA AAGAGGTGGA CAGAGAAGAC AGCAGAGACC ATGGGACCCC 60
 CCTCAGCCCC TCCCTGCAGA TTGCATGTCC CCGTGAAGA GGTCTGTCTC ACAGCCTCAC 120
 TTCTAACCTT CTGGGAACCA CCCACCACTG CCAAGCTCAC TATTGAATCC ACGCCATTCA 180
 ATGTCGCGA GGGGAAGGAG GTTCTTCTAC TCGCCACAAA CCTGCCCCAG AATCGTATTG 240
 GTTACAGCTG GTACAAAGCC GAAAGAGTGG ATGGCAACAG TCTAATTGTA GGATATGTAA 300
 TAGGAATCA ACAAGCTACC CCAGGCCCCG CACACAGTGG TCGAGAGACA ATATACCCCA 360
 ATGCATCCCT GCTGATCCAG AACGTACACC AGAATGACAC AGGATTCTAT ACCCTACAAG 420
 TCATAAAGTC AGATCTTGTG AATGAAGAAG CAACCGGACA GTTCCATGTA TACCCGAGAC 480
 TGCCCAAGCC CTCCTATCTC AGCAACAACT CCAACCCCGT GGAGGACAAG GATGCTGTGG 540

5 CCTTCACCTG TGAACCTGAG GTTCAGAACAA CAACCTACCT GTGGTGGGTA AATGGTCAGA 600
 GCGTCCCGGT GAGTCCCAAG CTGCAGCTGT CCAATGGCAA CATGACCCCTC ACTCTACTCA 660
 GCGTCAAAAG GAACGATGCA GGATCCTATG AATGTGAAAT ACAGAACCCA GCGAGTGCCA 720
 ACCGAGTGGA CCGAGTCACC CTGAATGTCC TCTATGSCCC AGATGTCCCC ACCATTTCOC 780
 CCTCAAAAGG CAATTACCGT CCAGGGGAAA ATCTGAACCT CTCCTGCCAC GCAGCCTCTA 840
 ACCCACTTGC ACAGTACTCT TGGTTTATCA ATGGGACGTT CCAGCAATCC ACACAGAGGC 900
 TCTTTATCCC CAACATCACT GTGAATAATA GCGGATCCTA TATGTGCCAA GCCATAACT 960
 CAGCCACTGG CTTCAATAGG ACCACAGTCA CGATGATCAC AGTCTCTGGA AGTGCTCCTG 1020
 TCCCTCTCAG TGTGGCCACC GTCGGCATCA CGATTGGAGT GCTGGCCAGG GTGGCTCTGA 1080
 TATAGCAGCC CTGGTGTATT TTCGATATTT CAGGAAGACT GGCAGATTGG ACCAGACCC 1140
 GAATTTCTCT AGCTCCTTCA ATCCCATTTT ATCCCATGGA ACCACTAAAA ACAAGGTCTG 1200
 CTCCTGCTCT GAAGCCCTAT ATGCTGGAGA TGGACAATC AATGAAAATT TAAAGGGAAA 1260
 ACCCTCAGGC CTGAGGTGTG TGCCACTCAG AGACTTCACC TAACTAGAGA CAGTCAAACT 1320
 GCAAACCATG TACGAGAAAT GACGACTTCA CACTATGGAC AGCTTTTCCC AAGATGTCAA 1380
 AACAGAGACT CTCATCATGA TAAGGCTCTT ACCCCCTTTT AATTTGTCTT TGCTTATGCC 1440
 TGCCCTCTTC GCTTGGCAGG ATGATGCTGT CATTAGTATT TCACAAGAGG TAGCTTCAGA 1500
 GGGTAACCTA ACAGAGTGTG AGATCTATCT TGTCAATCCC AACGTTTAC ATAAATAAG 1560
 AGATCCTTTA GTGCACCCAG TGACTGACAT TAGCAGCATC TTTAACACAG CCGTGTGTTC 1620
 AATGTACAG TGGTCCCTTT CAGAGTTGGA CTCTAGACT CACTGTCTCT CACTCCTCTG 1680
 TTTAATTCAA CCGAGCCATG CAATGCCAAA TAATAGAAAT GCTCCCTACC AGCTGAACAG 1740
 GCGAGGAGCT GTGCAGTTTC TGACACTTGT TGTGAAACAT GGCCTAATAC AATGGGTATC 1800
 GCTGAGACTA AGTGTGTAGG ATTAACAAAT GTGCTGCTTG GTTAAATGG CTACACTCAT 1860
 CTGACTCAT CTATTATCTA TTTAGTTGG TTGATCTCTT GCCTAAGGTG CGTAGTCCAA 1920
 CTCCTGGTAT TACCTCTTAT ATAGTCTATC TAGTAGTCAT ACTCCCTGGT GTAGTGTATT 1980
 CTCCTAAGGC TTTAAATGTC TGCATGCAGC CAGCCATCAA ATAGTGAATG GTCTCTCTTT 2040
 GGCTGGAATT ACAAAACCTCA GAGAAATGTG TCATCAGGAG AACATCATAA CCCATGAAGG 2100
 ATAAAGAGCC CAAATGTGGG TAACTGATAA TAGCACTAAT GCCTTAAGAT TTGGTCACAC 2160
 TCTCACCTAG GTGAGGCGAT TGAAGCCAGT GTGCTAAATG CTACATACTC CAACTGAAAT 2220
 GTTAAGGAAG AAGATGATCA CAATTAAAAA AAATTAAAAA CAATTAAAAA AAAAAAAGA 2280
 ACACAGGAGA TTCCAGTCTA CTGAGTTAG CXTAATACAG AAGTCCCTTC TACTTTAAT 2340
 TTTACAAAAA AGTAACCTGA ACTAATCTGA TGTAAACCAA TGTATTATT TCTGTGGTTC 2400
 TGTTCCTTGT TTCCAATTTG ACAAAACCCA CTGTTCTTGT ATTGTATTGC CCAGGGGAG 2460
 CTATCACTGT ACTGTAGAG TGGTGTCTGT TTAATTCATA AATCACAAAT AAAAGCCAA 2520
 TAGCTCTATA ACT

Seq ID NO: 436 Protein sequence
 Protein Accession #: AAA59907.1

40 1 11 21 31 41 51
 MGPPSAPPCR LHVFWKEVLL TASLLTFWNP PTTAKLTIES TPFMVAEGKE VLLLAENLPQ 60
 KRIGYSWYKG ERVDGNSLIV GYVIGTQOAT PGPAYSGRET IYFNASLIQ NVTONDTGPF 120
 TLQVIKSDIV MEEATGQFHV YPELKPSPIS SNNSNFVEDK DAVAFCTBEF VQNTLYLWVW 180
 NGQSLFVSFR LQLSNGNMTL TLLSVKRNDG GSYECLEQNE ASANRSDPVT LNVLYGSDVP 240
 45 TISPSKANYR PGENLNLSCH AASNPPAQYS WFINGTFQQS TQELFIPNIT VMNSGSYMCO 300
 AHSATGLNR TIVTMITVSG SAPVLSAVAT VGITIGVLAR VALI

Seq ID NO: 437 DNA sequence
 Nucleic Acid Accession #: M18728.1
 Coding sequence: 1355..1657

55 1 11 21 31 41 51
 GGAGCTCAAG CTCCTCTACA AAGAGGTGGA CAGAGAAGAC AGCAGAGACC ATGGGACCCC 60
 CCTCAGCCCC TCCCTGCAGA TTGCATGTCC CCGGAAAGGA GGTCTCTGCT ACAGCCTCAC 120
 TTCTACACCT CTGGAACCCA CCGCACCCTG CCAAGCTCAC TATTGAATCC ACGCCATCA 180
 ATGTGACAGA GGGGAGAGAG GTTCTCTAC TCGCCACAAA CCGTCCCCAG AATCGTATTG 240
 GTTACAGCTG GTACAAAGGC GAAAGAGTGG ATGGCAACAG TCTAATTGTA GGATATGTAA 300
 TAGGAATCA ACAGACTACC CCAGGGCCCG CATACAGTGG TCGAGAGACA ATATACCCCA 360
 60 ATGCATCCCT GCTGATCCAG AAGTCAACC AGAATGACAC AGGATTCTAT ACCCTACAG 420
 TCATAAAGTC AGATCTGTG AATGAAGAAG CAACCGGACA GTTCCATGTA TACCCGAGC 480
 TGCCCAAGCC CTCATCTCC AGCAACAAC CCAACCCCTG GGAGGACAG GATGCTGTG 540
 CCTTCACTG TGAACCTGAG GTTCAGAA CAACCTACCT GTGGTGGGTA AATGGTCAGA 600
 GCTTCCCGGT CAGTCCGAG CTGCAGCTGT CCAATGGCAA CATGACCCCT ACTCTACTCA 660
 65 GCGTCAAAAG GAACGATGCA GGTCTCTATG AATGTGAAAT ACAGAACCCA GCGAGTGCCA 720
 ACCGAGTGA CCGAGTCACC CTGAATGTCC TCTATGGCC AGATGTCCCC ACCATTTCOC 780
 CCTCAAGGC CAATTACCGT CCAGGGGAAA ATCTGACCT CTCTGCCCAC GCAGCCTCTA 840
 ACCCACTTGC ACAGTACTCT TGGTTTATCA ATGGGACGTT CCAGCAATCC ACACAGAGGC 900
 70 TCTTTATCCC CTTCAATAGG ACCACAGTCA CGATGATCAC AGTCTCTGGA AGTGCTCCTG 1020
 TCTCTCAGC TGTGGCCATC GTGGGCATCA CGATTGGAGT GCTGGCCAGG GTGGCTCTGA 1080
 TATAGCAGCC CTGGTGTATT TTCGATATTT CAGGAAGACT GGCAGATTGG ACCAGACCC 1140
 GAATTTCTCT AGCTCCTTCA ATCCCATTTT ATCCCATGGA ACCACTAAAA ACAAGGTCTG 1200
 CTCCTGCTCT GAAGCCCTAT ATGCTGGAGA TGGACAATC AATGAAAATT TAAAGGGAAA 1260
 75 ACCCTCAGGC CTGAGGTGTG TGCCACTCAG AGACTTCACC TAACTAGAGA CAGTCAAACT 1320
 GCAAACCATG GTGAGAAAT GACGACTTCA CACTATGGAC AGCTTTTCCC AAGATGTCAA 1380
 AACAGACTC CTATCATGA TAAGGCTCTT ACCCCCTTTT AATTTGTCTT TGCTTATGCC 1440
 TGCCCTCTTC GCTTGGCAGG ATGATGCTGT CATTAGTATT TCACAAGAGG TAGCTTCAGA 1500
 GGGTAACCTA ACAGAGTGTG AGATCTATCT TGTCAATCCC AACGTTTAC ATAAATAAG 1560
 80 AGATCCTTTA GTGCACCCAG TGACTGACAT TAGCAGCATC TTTAACACAG CCGTGTGTTC 1620
 AATGTACAG TGGTCCCTTT CAGAGTTGGA CTCTAGACT CACTGTCTCT CACTCCTCTG 1680
 TTTAATTCAA CCGAGCCATG CAATGCCAAA TAATAGAAAT GCTCCCTACC AGCTGAACAG 1740
 GCGAGAGTCT GTGCAGTTTC TGACACTTGT TGTGAAACAT GGCCTAATAC AATGGGTATC 1800
 GCTGAGACTA ACTGTAGAG ATTAACAAAT GTGCTGCTTG GTTAAATGG CTACACTCAT 1860

CTGACTCATT CTTTATCTCA TTTTAGTGG TTTGTATCTT GCCTAAGGTG GGTAGTCCAA 1920
 CTCCTGGTAT TACCCCTCTA ATAGTCATAC TAGTAGTCAT ACTCCCTGGT GTAGTGTATT 1980
 CTCCTAAAGC TTTAAATGTC TGCAATGCAGC CAGCCATCAA ATAGTGAATG GTCTCTCTTT 2040
 GGCCTGGAAAT ACAAAACTCA GAGAAATGTG TCATCAGGAG AACATCATAA CCCATGAAGG 2100
 ATAAAGCCCC CAATGGTGG TAACTGATAA TAGCACTAAT GCTTTAAGAT TTGGTCACAC 2160
 TCTCACCTAG GTGAGCCCAT TGAGCCAGTG GTGCTAAATG CTACATACTC CAATCTGAAT 2220
 GTTAAGGAAG AAGATAGATC CAATTAAAAA AATTTAAAC CAATTTAAAA AAAAAAAGA 2280
 ACACAGGAGA TTCCAGTCTA CTGTAGTTAG CATAATACAG AAGTCCCTCT TACTTTAAT 2340
 TTTACAAAAA AGTAACCTGA ACTAATCTGA TGTAAACCAA TGTATTATT TCTGTGGTTC 2400
 TGTTCCTTGG TTCCAATTGG ACAAACCCA CTGTTCTTGT ATTGTATTGC CCAGGGGGAG 2460
 CTATCACTGT ACTTGTAGAG TGGTGCTGCT TTAATTCATA AATCACAAT AAAAGCCAAT 2520
 TAGCTCTATA ACT

Seq ID NO: 438 Protein sequence
 Protein Accession #: AAA59908.1

1 11 21 31 41 51
 MDSEFSQVKT RLILIMIRLLP PFNLSLIMPA SFANQDDAVI SISQEVASEG NLTECQIYLV 60
 NPNVLHKIRD FLVHPVTDIS SIFNTAVCSN VQNSFSELDL

Seq ID NO: 439 DNA sequence
 Nucleic Acid Accession #: M18728.1
 Coding sequence: 2370..2501

1 11 21 31 41 51
 GGAGCTCAAG CTCTCTACCA AAGAGGTGGA CAGAGAAGAC AGCAGAGACC ATGGGACCCC 60
 CCTCAGCCCC TCCTCTGAGA TTGCATGTCC CCTGGAAGGA GGTCTGTGTC ACAGCCTCAC 120
 TTCTAACTCT CTGGAACCCA CCCACCACTG CCAAGCTCAC TATTGAATCC ACGCAATTCA 180
 ATGTGCGAGA GGGGAAGGAG GTTCTTCTAC TCGCCACAA CCTGCCCGAG AATCGTATTG 240
 GTTACAGCTG GTACAAAGGC GAAAGAGTGG ATGGCAACAG TCTAATTGTA GGATATGTAA 300
 TAGGAATCTA ACAAGCTACC CCAGGCCCCG CATAAGTGG TCGAGAGACA ATATACCCCA 360
 ATGCATCCCT GCTGATCCAG AACGTCACCC AGAATGACAC AGGATTTCTAT ACCCTACAA 420
 TCATAAAGTC AGATCTTGTG AATGAAGAAO CAACCGGACA GTTCCATGTA TACCGGAGC 480
 TGCCCAAGCC CTCCATCTCC AGCAACAAC CTACCCCGGT GGAGGACAAG GATGCTGTGG 540
 CCTTCACTGC TGAACCTGAG GTTCAGAAC CAACCTACCT GTGGTGGGTA AATGGTCAGA 600
 GCCTCCCGGT CAGTCCCAAG CTGCACTGT CCAATGGCAA CAGTACCTC ACTCTACTCA 660
 GCGTCAAAAG GAACGATGCA GGATCTATG AATGTGAAT ACAGAACCA GCGAGTGCCA 720
 ACCGCACTGA CCCAGTACC CTGAATGTCC TCTATGGCCC AGATGTCCC ACCATTCCC 780
 CCTCAAAGGC CAATTAACCT CCAGGGGAAA ATCTGAACCT CTCTGCCAC GCAGCCTCTA 840
 ACCCACTCTG ACAGTCTCTG TGGTTTATCA ATGGGACGTT CCAGCAATCC ACACAAGAGC 900
 TCTTTATCCC CAACATCACT GTGAATAATA GCGGATCCTA TATGTGCCAA GCCCATACT 960
 CAGCCACTGG CTTCAATAGG ACCACAGTCA CGATGATCAC AGTCTCTGGA AGTGTCTACT 1020
 TCCTCTCAGC TGTGGCCACC GTCCGCATCA CGATTGGAGT GCTGGCCAGG GTGGCTCTGA 1080
 TATAGCAGCC CTGGTGTATT TTGATATTT CAGGAAGACT GGCAGATTGG ACCAGACCT 1140
 GAATCTCTCT AGCTCTCTCA ATCCCATTTT ATCCCATGGA ACCACTAAAA ACAAGGTCTG 1200
 CTCTGCTCTT GAAGCCCTAT ATGCTGAGGA TGGACAACTC AATGAAAAAT TAAAGGGAAA 1260
 ACCCTCAGGC CTGAGGTGTG TGCCACTCAG AGACTTCAAC TAACATAGAG CAGTCAAACT 1320
 GCAAAACATG GTGAGAAATT GACGACTCA CACTATGGAC AGCTTTTCCC AAGATGTCAA 1380
 ACAAGACTC CTCATCATGA TAAGGCTCTT ACCCCCTTTT AATTTGTCTT TGCTTATGCC 1440
 TGCCCTCTTC GCTTGGCAGG ATGATGCTGT CATTAGTATT TCACAAGAAG TAGCTTCAGA 1500
 GGGTAACCTA ACAGAGTGTG AGATCTATCT TGTCAATCCC AACGTTTAC ATAAATAAGA 1560
 AGATCTCTTA GTGACCCAGG TGACTGACAT TAGCAGCATC TTTAACACAG CCGTGTGTTT 1620
 AAATGTACAG TGGTCTTTT CAGAGTGGGA CTCTAGACT CAOCCTGTTT CACTCCCTGT 1680
 TTTAATTCAG CCCAGCCATG CAATGCCAAA TAATAGAATT GCTCCCTACC AGCTGAACAG 1740
 GGAGGAGTCT GTGCAGTTTC TGACACTTGT TGTGTAACAT GGCTAAATAC AATGGGTATC 1800
 GCTGAGACTA AGTGTAGAA ATTAACAAAT GTGCTGCTTG GTTAAATGG CTACACTCAT 1860
 CTGACTCATT CTTTATCTCA TTTAGTGG TTTGTATCTT GCCTAAGGTG GGTAGTCCAA 1920
 CTCCTGGTAT TACCCCTCTA ATAGTCATAC TAGTAGTCAT ACTCCCTGGT GTAGTGTATT 1980
 CTCCTAAAGC TTTAAATGTC TGCAATGCAGC CAGCCATCAA ATAGTGAATG GTCTCTCTTT 2040
 GGCCTGGAAAT ACAAAACTCA GAGAAATGTG TCATCAGGAG AACATCATAA CCCATGAAGG 2100
 ATAAAGCCCC CAATGGTGG TAACTGATAA TAGCACTAAT GCTTTAAGAT TTGGTCACAC 2160
 TCTCACCTAG GTGAGCCCAT TGAGCCAGTG GTGCTAAATG CTACATACTC CAATCTGAAT 2220
 GTTAAGGAAG AAGATAGATC CAATTAAAAA AATTTAAAC CAATTTAAAA AAAAAAAGA 2280
 ACACAGGAGA TTCCAGTCTA CTGTAGTTAG CATAATACAG AAGTCCCTCT TACTTTAAT 2340
 TTTACAAAAA AGTAACCTGA ACTAATCTGA TGTAAACCAA TGTATTATT TCTGTGGTTC 2400
 TGTTCCTTGG TTCCAATTGG ACAAACCCA CTGTTCTTGT ATTGTATTGC CCAGGGGGAG 2460
 CTATCACTGT ACTTGTAGAG TGGTGCTGCT TTAATTCATA AATCACAAT AAAAGCCAAT 2520
 TAGCTCTATA ACT

Seq ID NO: 440 Protein sequence
 Protein Accession #: AAA59909.1

1 11 21 31 41 51
 MLTNVPISVV LFPSCNLTKP TVLVLYCPGG AITVLVWCC FNS

Seq ID NO: 441 DNA sequence
 Nucleic Acid Accession #: NM_002381.2
 Coding sequence: 64..1524

1 11 21 31 41 51

| | | | | | | | |
|----|-------------|-------------|-------------|-------------|------------|------------|------|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| | AAATCCGAGC | CTCGCGTGGG | CTCCGCGCCC | CGACGCGACA | CCACCAGGCC | CACGAGGCCC | 60 |
| | ACCATGCCGC | GCCCGGCCCC | CGCGCGCCGC | CTCCCGGGAC | TCTCTCTGCT | GCTCTGGCCG | 120 |
| 5 | CTGCTGCTGC | TGCCCTCCGC | CGCCCTCCGC | CGCTGGGCC | GCCCGGGCTT | CGGAGGCTCG | 180 |
| | GAGACCCGAG | GTCCCGGGGG | CAGCCCTGGA | CGCCGCCCTT | CTCTGCGGCT | TCCCGACGGC | 240 |
| | GCGCCCGCTT | CCGGGACCTAG | CGAGCCTGGC | CGCGCCCGCG | GTGCAAGGTG | TTGCAAGAGC | 300 |
| | AGACCCCTTG | ACCTGGTGTG | TATCATATGAT | AGTTCTCGTA | GGTTACGGCC | CCTGGAATTC | 360 |
| | ACCAAAAGTGA | AAACTTTTGT | CTCCCGGATA | ATCGACACTC | TGGACATTGG | GCCAGCCGAC | 420 |
| | ACGCGGGTGG | CAGTGGTGAA | CTATGCTAGC | ACTGTGAAGA | TCGAGTTCOA | ACTCCAGGCC | 480 |
| 10 | TACACAGATA | AGCAGTCCCT | GAAGCAGGCT | GTGGGTGAAA | TCACACCCCT | GTCAACAGGC | 540 |
| | ACCATGTTCAG | GCCTAGCCAT | CCAGACAGCA | ATGGAAGAAG | CCTTCACAGT | GGAGGACAGG | 600 |
| | GCTCGAGAGC | CCCTCTCTAA | CATCCCTAAG | GTGGCCATCA | TTGTTACAGA | TGGGAGGCC | 660 |
| | CAGGACCAAG | TGAATGAAGT | GGCGGCTCGG | GCCCAAGCAT | CTGGTATTGA | GCTCTATGCT | 720 |
| | GTGGGCGTGG | ACCGGCGAGA | CATGGCGTCC | CTCAAGATGA | TGGCCAGTGA | GCCCCAGAG | 780 |
| 15 | GAGCATGTTT | TCTACGTGGA | GACCTATGGG | GTCAATTGAGA | AACTTTCCTC | TAGATTCCAG | 840 |
| | GAAACCTTCT | GTGCGCTGGA | CCCCGTGTGG | CTTGGAAACAC | ACCAGTGCCA | GCACGCTCGC | 900 |
| | ATCAGTGAAG | GGGAAGCCAA | GCACCACTGT | CAGTGTAGCC | AAGGATACAC | CTTGAATGCC | 960 |
| | GACAGAAAAA | CGGTGTCAGC | TCTTGATAGG | TGTGCTCTTA | ACACCCACGG | ATGTGAGCAG | 1020 |
| | ATCTGTGTGA | TAGTCAAGAG | TGGCTCTTAT | CATTGTGAGT | GCTATGAAGG | TTATACCTTG | 1080 |
| 20 | AATGAAGACA | GGAAAACTTG | TTCAGCTCAA | GATAAATGTG | CTTTGGGTAC | CCATGGGTGT | 1140 |
| | CAGCACATTT | GTGTGAATGA | CAGAACAGGG | TCCCATCATT | GTGAATGCTA | TGAGGGCTAC | 1200 |
| | ACTCTGAATG | CAGATAAAAA | AACATGTTCA | GTCCGTGACA | AGTGTGCCCT | AGGCTCTCAT | 1260 |
| | GGTTCGCCAG | ACATTTGTGT | GAGTGATGGG | CGCGCATCCT | ACCACTGTGA | TGCTATCTCT | 1320 |
| 25 | GGCTACACCT | TAAATGGAGA | CAAGAAAAACA | TGTTCAAGCA | CTGAGGAAGC | ACGAAGACTT | 1380 |
| | GTTTCCACTG | AAGATGCTTG | TGGATGTGAA | GCTACACTGG | CATTCCAGGA | CAAGGTCAAG | 1440 |
| | TGCTATCTTC | AAGAGCTGAA | CACATAACTT | GATGACATTT | TGAGGAAGTT | GAATAAATAT | 1500 |
| | GAAATGAGAC | AAATACATCG | TTAAATTTCT | CCAATTTCTC | ACCTGAAATG | GTGGACAGCT | 1560 |
| | TGGTGACTAT | AAATCTCATG | CATTCTTTTG | CACACCTGTT | ATGCGCAATG | TTCTTGCTAA | 1620 |
| | TAATTTGCCA | TATCTGTAT | TAATGCTTGA | ATATTACTGG | ATAAATTTGA | TGAAGATCTT | 1680 |
| 30 | CTGCAGATTC | AGCATGATTT | TTCCAAGGAA | ATACATATGC | AGATACCTAT | TAAAGAGCAA | 1740 |
| | CTTTAGTGTG | TCTAAGTTAT | GACTGTGAAA | TGATGTGTAG | GAAATAGAA | GAATAAGTTA | 1800 |
| | GTGTTCTTTT | ATCTACTAAT | TGAGCCATTT | AATTTTAA | TGTTTATATT | AGATAACCAT | 1860 |
| | ATTCACAATG | GAAACTTTAG | GTCTAGTTTC | TTTTGATAGT | ATTTATAATA | TAAATCAATC | 1920 |
| 35 | TTATTACTGA | GAGTGCAGAT | TGTACAAGGT | ATTTACACAT | ACAACCTCAT | ATAACTGAGA | 1980 |
| | TGAATGTAA | TTTGAAGTGT | TTAACACTTT | TTGTTTTTTG | CTTATTTTGT | TGGAGTATTA | 2040 |
| | TTGAAGATGT | GATCAATAGA | TTGTAATACA | CATATCTAAA | AATAGTTAAC | ACAGATCAAG | 2100 |
| | TGAACATPAC | ATTGCCATTT | TTAATTCATT | CTGGTCTTTG | AAAGAAATGT | ACTACTAAGG | 2160 |
| | AGCACAATGT | GTGAATTTAG | GGTGTAAAC | TTTTTACCAA | GTACAAAAT | CCCAATTTCA | 2220 |
| | CTTTATTATT | TGCTCTCAGG | ATCCAAGTGA | CAAAGTTATA | TATTTATAAA | ATTGCTATAA | 2280 |
| 40 | ATCGACAAAA | TCTAATGTTG | TCTTTTAA | GTTAGTGATC | ACCCTGCTTC | AGCCTCCCAA | 2340 |
| | AGTGTCTGGA | TACAGGCTT | GAAAGTCTAA | CTTTTTTATA | CTTATATATT | TGATACATAT | 2400 |
| | AATTTCTTGA | GTCTTGAAC | TTGCAACTTT | CAGAACAAAA | CAGTCCCTTA | AATTTTGCA | 2460 |
| | TGCTCAATTC | TGTTTTTGT | TTGCATTGTC | TTAATATAA | TAAAGTTAT | TACCTTTACA | 2520 |
| 45 | TATTATCATG | TCTATTTTTG | ATGACTCATC | AATTTTGCT | ATTAAAGATA | TTTCTTTAAA | 2580 |
| | TTAAAAA | AAAAA | | | | | |

Seq ID NO: 442 Protein sequence
Protein Accession #: NP_002372.1

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|----|-------------|-------------|------------|------------|------------|------------|-----|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| | MPPAPAPARI | PGLLLLLLWPL | LLLPSAAPPD | VARPGFRLE | TRGPGGSPGR | RPSAPAPDGA | 60 |
| | PASGTSEPR | ARGAGVCKSR | PLDLVFLIDS | SRVSRPLEFT | KVKTFVSRII | DTLDIGEDAT | 120 |
| | RVAVVNYAST | VKIEFQLQAY | TDKQSLKQAV | GRITFLSTGT | MSGLAIQTAM | DEAFVFEAGA | 180 |
| 55 | REPSSMIPKV | AIIVTDGRFQ | DOVNEVAARA | QASGIELYAV | OVDRADMASL | KMMASEPLEE | 240 |
| | HVFYVETYG | IEKLSSRFQE | TFCALDPCVL | ETHQCQHVCI | SDGEGKHECE | CSQGYTLNAD | 300 |
| | KRTCHALDRC | ALNTTGCCEHI | CVNDRSQSVH | CECYEGYTLN | EDRKTCSAQD | KCALGTHGCQ | 360 |
| | HLNVNDRITGS | HHCECYBYT | LNADKKTCSV | EDKCALGSEH | QBIICVSDGA | ASYHCDCTPG | 420 |
| 60 | YTLNEDDKTC | SATBEARRLV | STEDACGCEA | TLAPQDKVSS | YLQRLNTRLD | DILERLKINE | 480 |
| | YQGIHR | | | | | | |

Seq ID NO: 443 DNA sequence
Nucleic Acid Accession #: NM_016639.1
Coding sequence: 40..429

| | | | | | | | |
|----|------------|-------------|-------------|------------|------------|------------|-----|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| | GCGGCGGGCG | CAGACAGCGG | CGGGCGCAGG | ACGTGCACTA | TGGCTCGGGG | CTCGCTGCGC | 60 |
| | CGGTTGCTGC | GGCTCCTCCT | GCNGGGGCTC | TGGCTGGCGT | TGCTGCGCTC | CGTGGCGGGG | 120 |
| 70 | GAGCAAGCGC | CAGGACCGCG | CCCCGTCTCC | CGCGCGAGCT | CCTGGAGCGC | GGACCTGGAC | 180 |
| | AAGTGCAATG | ACTGCGCGTC | TTGCAGGGCG | CGACCGCACA | GCGACTTCTG | CTTGGGCTGC | 240 |
| | GCTGCAGCAC | CTCCGTGCCC | CTTCGGGCTG | CTTTGGCCCC | TCTTGGGGGG | CGCTCTGAGC | 300 |
| | CTGACCTTGG | TGCTGGGGCT | GCTTTCTGCG | TTTTTGTGCT | GGAGACGATG | CGCGAGGAGA | 360 |
| | GAGAAGTTCA | CCACCCCAT | AGAGGAGACC | GGCGGAGAGG | GCTGCCAGC | TGTGGCGCTG | 420 |
| 75 | ATCCAGTGAC | AATGTGCCCC | CTGCCAGCGG | GGGCTGCCCC | ACTCATCAT | CATTTCATCA | 480 |
| | TTCTAGAGCC | AGTCTCTGCC | TCCAGACAGC | GGCGGGAGCC | AAGCTCCTCC | AACCAAGAG | 540 |
| | GGGGTGGGGG | GCGGTGAATC | ACCTCTGAGG | CCTGGGCCCA | GGGTTCAGGG | GAACCTTCCA | 600 |
| | AGGTGTCTGG | TTCGCTTGCC | TCTGGCTCCA | GAACAGAAAG | GGAGCCTCAC | GCTGGCTCAC | 660 |
| 80 | ACAAAACAGC | TGACACTGAC | TAAGGAACCTG | CAGCATTTGC | ACAGGGGAGG | GGGTCGCCCT | 720 |
| | CCTTCTCTAG | GACCTGGGGG | CCAGGCTGAC | TTGGGGGGCA | GACTTGACAC | TAGGCCCCAC | 780 |
| | TCATCTCAGT | GTCTGAAAT | TCCACCAAGG | GGGTCAACCT | GGGGGGTTAG | GGACCTATT | 840 |
| | TTAACACTAG | GGGTCAGGCC | ACTAGGAGGG | CTGGCCCTAA | GATACAGACC | CCCCAAGCT | 900 |
| | CCCAAGCGG | GGAGAGAGATA | TTTATTTTGG | GGAGGTTTGG | GAGGGGAGGG | AGATTTTATT | 960 |

AATAAAAGAA TCCTTAACTT TAAAAAATAA AAAAAAAA

Seq ID NO: 444 Protein sequence
Protein Accession #: NP_057723.1

| | | | | | | |
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| 1 | 11 | 21 | 31 | 41 | 51 | |
| MARGSLRRLI | RLVLGLWLIA | LLRSVAGEQA | PGTAPCSRGS | SWSADLDKCM | DCAGSCRARPH | 60 |
| SDFCLGCAAA | PPAPFRLNLP | ILGGALSLTF | VLGLLSGFLV | WRRRCRRREKF | TTPIKETGGGE | 120 |
| GCPAVALIQ | | | | | | |

Seq ID NO: 445 DNA sequence
Nucleic Acid Accession #: AF322916.1
Coding sequence: 50..4300

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| 1 | 11 | 21 | 31 | 41 | 51 | |
| GCACTCCGCA | GCCTTTAAGG | TTGCGCGGGG | GGCCAGGCCA | GAGTTABCCA | TGAAGAGCCT | 60 |
| CAGTCCCGC | CTGAGGAGGC | AGGACGTGCC | CAGCCCCGCG | TGCTCTGGCG | CCGCCGCCGC | 120 |
| CAGCGCCGAT | GCAGCAGATT | GGAATAAATA | TGATGAOCGA | TTGATGAAGG | CAGCAGAAAG | 180 |
| GGGGGATGTA | GAATAAGTGA | CCTCAATCCT | TGCTAAAAAG | GGGGTCAATC | CAGGCAAACT | 240 |
| AGATGTGGAA | GGCAGATCTG | TCTTCCATGT | TGTGACCTCA | AAGGGGAATC | TTGAGTGTIT | 300 |
| GAATGCCATC | CTTATACATG | GAGTTGATAT | TACAAACAGT | GACACTGCAG | GGAGAAATGC | 360 |
| TCTTCACCTG | GCTGCTAAGT | ATGGACATGC | ATTGTGCTTA | CAAAAACITC | TACAGTACAA | 420 |
| TTGTCCCACT | GAGCATGCAG | ACCTGCAGGG | AAGAACTGCA | CTTCAAAAAA | AAGCAATGCG | 480 |
| AGATTGTCTT | CTTAGCATAC | AGCTGCTTTG | TGACCATGGG | GCCTCTGTGA | ATGCCAAAGA | 540 |
| TGTAAAGGAG | CGGACACCAT | TTGTTCTGGC | TACTCAGATG | AGTAGGCCAA | CAATATGTCA | 600 |
| ACTGCTGATA | GATAGAGGAG | CGGATGTTAA | TTCCAGAGAC | AAACAAAACA | GAACTGCCCT | 660 |
| CATGCTAGGT | TGCATATATG | GTTCAGAGAG | TGCAGTAGAA | GTCTTAATTA | AAAAATGGTG | 720 |
| TGATATAAGC | TTGCTGGATG | CGCTTGGCCA | TGATAGTTCT | TACTATGCAG | GAAATGGTGA | 780 |
| CAATCTGGAC | ATTCTAACCT | TGTTGAAGAC | TGCATCGGAA | AAATACCAACA | AAGGAGAGAG | 840 |
| ACTTTGGTAG | AAAGGACCAT | CTTTGCAACA | GCGAAATTTG | ACACACATGC | AAGATGAAGT | 900 |
| AAATGTGAAG | TCACATCAGA | GGGAGCATCA | AAATATTCAG | GATTTGGAGA | TTGAAAATGA | 960 |
| AGATTGTGAA | GAGAGGTTGA | GAATAATTCA | GCAAGAACAA | AGAATACTTT | TGGATAAAGT | 1020 |
| CAATGGTTTA | CAATTACAGC | TGAATGAGGA | AGTTATGGTT | CTGATGATCT | TGGAAAGCGA | 1080 |
| GAGAGAAAAG | CTGAAGTCCC | TTTTGGCAGC | TAAAGAAAAG | CAACATGAAG | AAAGCTTAAG | 1140 |
| GACTATTGAG | GCTCTGAAAA | ATAGATTTAA | ATATTTTGAG | AGTATCATTT | TAGGATCAGG | 1200 |
| AGTCTATTTT | AGTAAACGAA | AAGAAGATAT | GCTTCTTAAA | CAAGGTCAGA | TGTATATGGC | 1260 |
| AGCTCACAG | TGTATCTCCC | CAGGTATACC | AGCCCATATG | CAAGGCAGAT | CTATGTTAAG | 1320 |
| ACCTCTGGAA | CTATCTTTAC | CCAGTCAAAAC | GTCTACTCTT | GAATAAGAAA | TTTTAAAGAA | 1380 |
| AGAGTTAGAA | GCAATGCGAA | CTTTCTGTGA | GTCCAGCAAA | CAAGACCGAC | TGAAGCTOCA | 1440 |
| AAATGAAAG | GCAACACAAAG | TGGCAGATG | CRAAGCTTTA | GCAATTGAAT | GTGAAGGGGT | 1500 |
| CAAGGAGGAT | TCAGATGAAC | AGATAAAGCA | ATTAGAAGAT | GCAATTAAAG | ATGTGCAGAA | 1560 |
| GAGGATGAT | GAGTCAGAG | GTAAAGTTAA | ACAAATGCAG | ACCCATTTTC | TTGCCCTTAA | 1620 |
| AGAACACTTA | CAAGCTGAAG | CAGCCTCAGG | GAATCACAGA | CTAACCGAGG | AACTGAAGGA | 1680 |
| TCAGTTGAAA | GACTTGAAG | TAAATATGA | AGGTGCTTCA | GCAAGAGTGG | GGAAATTAAG | 1740 |
| AAACCAATC | AAAGCCAAATG | AGATGATAGT | AGAAAGGTTT | AAGAGGGATG | AAGGCCAAGCT | 1800 |
| GATAGAGGAA | AAATAGCGAT | TACAGAAAGG | ACTTAGTATG | TGTGAATATG | AGCGAGAGAA | 1860 |
| GAAGGAGAGA | AAGGTTCAGG | AGATGGAGGG | CCAGGCCAAA | GAAATGTGAG | CQAAGTGGGC | 1920 |
| CCTTCTCAT | CCAGCTGAAA | AAITTGAAAA | CATGAAGAGC | TCATTATCAA | ATGAAGTGAA | 1980 |
| TGAGAAAGCA | AAAAAATAG | TAGAAATGGA | AAGAGAACAT | GAATAATCAC | TTAGTGAAAT | 2040 |
| TAGACAGTTA | AGAGAGAAC | TTGAGATGT | TAAGGCCAAG | CTTGCTCAGC | ACGTCAAAAC | 2100 |
| AGAGGAACAT | GAACAGGTTA | AGAGCAGATT | AGAACACAAA | TCAGGAGAAC | TTGGGAAGAA | 2160 |
| GATCACTGAG | TTAATCATGA | AAATCAGAC | ACTACAAAG | GAAATTGAAA | AAGTTTATTT | 2220 |
| GGATAATAAG | CTCTTCAAGG | AGCAAGCACA | TAACTTAACA | ATTGAATGGA | AAATCATTA | 2280 |
| TGTTCTTTTA | AAAGTAAAGT | AAGACATGAA | AAAGTCACAT | GATGCAATTA | TTGATGATCT | 2340 |
| TAATAGAAAG | CTTTTAGATG | TAAACAAAA | ATATACAGAA | AAGAAGTTGG | AAATGGAGAA | 2400 |
| ATTGCTACTG | GAATATGACA | GCITAGTAA | GGATGTAGC | CGCTAGAAA | CTGTGTTTGT | 2460 |
| ACCTCTCTG | AAACATGAAA | AAGAGATAAT | AGCTCTGAAA | TCCATATATG | TTGAACCTTA | 2520 |
| GAACAGCTG | TCTGAACCTA | AGAAAAATG | TGGTGAAGAC | CAGGAGAAAA | TACACGCTCT | 2580 |
| CACATCTGAA | AACACTAATC | TGAAGAAGAT | GATGAGTAAT | CAGTATGTGC | CAGTTAAAC | 2640 |
| CCATGAAGAG | GTTAAACAAAC | CACGTGAATG | CAOGTTAGCC | AAAACATAAC | GAGAATTATT | 2700 |
| AGATGTGAAG | AAAAAATTTG | AGATATAAAA | TCAGGAATTT | GTAAAAATAA | AGATAAGAAA | 2760 |
| TGAAATATTA | AAAGAAACCC | TGGAAAACAC | TCAGAACCAA | ATAAAGCTG | AGTACATCAG | 2820 |
| CCTGGCAGAG | CACGAGGCCA | AGATGAGCTC | GCTAAGTCTG | AGCATGAGAA | AGGTGCAGGA | 2880 |
| TAGTATGCT | GAAATCTTGG | CCAACCTACG | AAAAGGCCAA | GAAGAGATTG | TGACACTGCA | 2940 |
| TGCGAAAT | AAAGCCGAGA | AGAGGAGCT | CGACACAATA | CAAGAATGCA | TTAAGGTAAA | 3000 |
| ATATGCCCCA | ATTGTGAGCT | TTGAGGAGTG | CGAGAGAAAA | TTTAAAGCAA | CAGAGAAAGA | 3060 |
| ACTAAAAGAC | CAGTTATCAG | AGCAGACACA | AAAGTATAGT | GTCAAGTGAAG | AAGAAGTCAA | 3120 |
| GAATAACAAG | CAAGAGATAT | ACAAGTTAAA | GAAGGAGATT | TTTACCCTTC | AGRAAGATTT | 3180 |
| GAGAGATAAG | ACAGTCTCTA | TTGAGAGATC | TCATGAAATG | GAAGAGCAT | TAAGCAGAAA | 3240 |
| AACAGACGAG | CTAAACAAAC | AGTTAAAGGA | CTTGTCACAG | AAATACACGG | AAGTAAAGAA | 3300 |
| TGTGAAGAG | AAGCTAGTAG | AAGAAAATGC | CRAACAGACT | TCTGAGATAC | TTGCAAGTGA | 3360 |
| AAATCTTTTG | CAAAAACAAAC | ATGTTCCATT | GGAAACAGGT | GAGGCTCTGA | AAAAATCTCT | 3420 |
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| AGAGCAGCAG | ACAGTGACCA | AACCTCATCA | ATTGTTGGAG | AAATCAAAAGA | ACTCTTCTGT | 3540 |
| ACCCCTGGCA | GAGCATTTGC | AGATTAAAGA | AGCATTGAG | AAAGAGTTG | GAATCATAAA | 3600 |
| AGCCAGCTTG | AGAGAAAGGG | AAGAGAAAG | CCAAAACAAA | ATGSAAGAG | TCTCCAAACT | 3660 |
| TCAGTGGAG | GTTCAAGATA | CTAAACAGAC | ATTAAAAAAA | TTAGAGACTA | GAGAGGTAGT | 3720 |
| TGACTTGTCT | AAATATAAAG | CAACAAAAAG | TGATTTGGAG | ACACAGATT | CTAGCTTAAA | 3780 |
| TGAAAAATAG | GCCAACTCTGA | ATAGAAAGTA | TGAGGAAGTA | TGTGAGGAAG | TTTTCATGCG | 3840 |
| CAAAAAGAG | AAATATCTG | CAAAAGATGA | GAAGGAATTA | CTGCAATTCA | GCATTGAGCA | 3900 |
| AGAAATTAAG | GATCAGAGGG | AACGATGTGA | TAGTCTCTTA | ACACAAATCA | CAGAGTTACA | 3960 |
| AAGAAGATA | CAAGATCTG | CTAAACAAAT | AGAAGCAAAA | GATAATAAGA | TAACGTAACT | 4020 |

5
GCTTAATGAT GTGGAAAGAT TAAACACAGC ACTCAATGGC CTTTCCCAAC TCACCTACAC 4080
AAGTGGGAAC CCCACCAAGA GGCAGAGCCA GCTGATTGAC ACTCTGCAGC ACCAAGTGAA 4140
ATCTCTGGAG CAACAGCTGG CCGATGCTGA CAGACAGCAC CAAGAAGTAA TTGCAATTTA 4200
TCGGACACAC CTCTCTTAGTG CTGCACAGGG TCACATGGAT GAAGATGTTT AGGAGGCTCT 4260
GCTCCAGATC ATACAAATGC GGCAGGGGCT TGTGTGCTAG CCGTTAGCAC TGACTGCCAG 4320
TATCTGTTTT ATCTTGTCTG TGTGAAACAT TCTTTGTGCA ACTCCATGGT CTTTCTGGGC 4380
CTTACTGTGC TGTATATAAT AAAATAAAAT ATATTTTGTT CTGGGTGT

10 Seq ID NO: 446 Protein sequence
Protein Accession #: AAG49577.1

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LQNCPTTEHA DLQGRATLQK KAMADCPSSI QLLCDHGASV NAKDVKGRTF LVLATQMSRP 180
TIQQLLIDRG AIVNSERDKN RTALMLGCEY GCRDAVEVLI RKGADISLLD ALGHSSYYA 240
RIGDNLIDILT LLKTASENTN KGRRLWKKGP SLQQRNLTHM QDEVNVKSHQ REHQNIQDLE 300
IENEDLKERL RKIQQQRIL LDKVNGLLQL LNEBVMVADD LESERREKLKS LLAAKERQHE 360
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SMRPLLESL PSQTSYSENE ILKKELEAMR TFCESAKQDR LKLQNELAHK VAECALALE 480
CERVKESDE QIKQLEDALK DVQKRMVSE GKVKQMTHF LALKRHLSR AASGNHRLTE 540
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ERERKGRKVT EMEGQAKELS AKLALSIPAE KPENMKSSLS NEVMEKAKKL VEMEREHEKS 660
LSLRQKRS LENVKAQLAQ HVKPEEBQV KSRLEBQSGE LKKITELTL KMQLQKEIE 720
KVYLDNKLK BOAHNLTIEM KNYVPIKVS EDMKSHDAI IDMLNRKLLD VTQKYTEKCL 780
EMKLLLEND SLKQVSRLE TVFVPEKHE KRIIALKSNL VELKKQLSEL KKRQGEDQEK 840
IHALTSENTN LKIMMSNQYV PVKTHEEVM TLEDTLAKTN RELLDVKKOP EDINQEFVKI 900
KDKNEILKRN LENTNQIKA EYISLAEHEA KMSSLSQSMR KVQDSNAEIL ANYRKQGEI 960
VTHAEKKAQ KHELDTIQEC IKVYAPIVS PECEERKFKA TEKELKDQLS BQTKYVSVE 1020
EEVKKNQEN DLKLEKILFTL QKDLRDKTVL IEKSHMERA LSKRTDELNK QLEKLSQYKT 1080
EVRNVKELV ENAKQTSSEI LAVQNLLQKQ HVPLEQVEAL EKSLEGTIEN LKEELKSMQR 1140
CYERBQQTIVT KLEQLLENQX NSSVPLAEHL QIKBAFEKEV GIKASLREK EESQNMKEE 1200
VSKLQSEVQN TQDALKKLET REVVDLSKYK ATKSDLETQI SSLNEKLANL NRKYEEVCBE 1260
VLHAKKEIS AKDEKELLHF STEQIKDQK ERCDKSLTTI TELQRRIQES AKQIEAKDNK 1320
ITELNDIVER LKQALNGLSQ LTYTSGNPTK RQSQLIDTLQ HQVKSLEQQL ADADRQHGEV 1380
IAIYRTHLS AAGHMDDEV QEALLQIIQM RQGLVC

40 Seq ID NO: 447 DNA sequence
Nucleic Acid Accession #: NM_003020.1
Coding sequence: 29..664

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CCCTGACCGG GTCTCGAAG CAGATATCCA GAGGCTGCTT CATGGTGTTA TGGAGCAATT 180
GGGCATTGCC AGGCCCGGAG TGGAAATATCC AGCTCACCAG GCCATGAATC TTGTGGGCC 240
CCAGAGCATT GAAGGTGGAG CTCATGAAGG ACTTCAGCAT TTGGGTCCCT TTGGCAACAT 300
CCCCAACATC GTGGCAGAGT TGACTGAGA CAACATTCTT AAGGACTTTA GTGAGGATCA 360
GGGTACCCA GACCTCCAA ATCCCTGTCC TGTGGGAAA ACAGATGATG GATGTCTAGA 420
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GAAGGAGGA GAGAGACGAA AGCGGAGGAG TGTCAATCCA TATCTACAG GACAGAGACT 600
GGATAATGTT GTTGCRAAGA AGTCTGTCC CCATTTTCA GATGAGGATA AGGATCCAGA 660
GTAAAGAGAA GATGCTAGAC GAAACCCAC ATTACTGTGT AGGCCTCAGC ATGGCTTATG 720
TGCACTGTGA AATGAGTCC CTGTGAATGA CAGCATGTTT CTTACATAGA TAATTATGGA 780
TACAAGCAG CTGTATGTAG ATAGTGTATT GACTTCACAC CGATGATTCT GCTTTTTGCT 840
AAATTAGAAT AAGAGCTTTT TTGTTCTTG GGTTTTTAAA ATGTGAATCT GCAATGATCA 900
TAAATAATAA AATGTGAAG TCAACATAA AAAGCAAGAC TATGAAGGC TCAGATTTCT 960
TGCAATTTAA AATGGTGTCT GAGGTGTGAC TATTTTGCC AAGTCTGTAG AAAGCTGTCA 1020
TTTGAATTTG ATTAGTGTAG TCATCCAGC CTTGGGCATT GTTATACACC AGTAAAGAAG 1080
GCTGTACTCA AGAGAGGAG CTGACACATT TCACCTGCT GGTCTTAAAT AAACATGAAT 1140
GCAAGCATTG GC

70 Seq ID NO: 448 Protein sequence
Protein Accession #: NP_003011.1

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MVERMVTML SGLLFWLASG WTPAPAYSFR TPDVSEADI QRLHGVMEQ LGIARPKVEY 60
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FVGKTDGCL ENTPTARFS RFPQLHQLF DPEHDYPLG KHNKLLLYEK MKGGERKRKR 180
SUNPYLQGR LDNVVAKKSV PHSDEKDP E

80 Seq ID NO: 449 DNA sequence
Nucleic Acid Accession #: NM_003816.1
Coding sequence: 79..2538

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CGGTGTTGCT TGTGCTTGG CCTGGTGGC CCACTCTCG GTGCGCGCG GCGAGGCTTT 180

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|----|-------------|-------------|------------|-------------|------------|------------|------|
| 5 | CAACAGACCT | CACATCTTTC | TTCTTATGAA | ATTATAACTC | CTTGGAGATT | AACTAGAGAA | 240 |
| | AGAAAGAAAG | CCCTTAGGCC | CTATTCAAAA | CAAGTATCTT | ATGTTATTCA | GGCTGAAGGA | 300 |
| | AAAGAGCATA | TTATTCACTT | GGAAAGGAAC | AAAGACCTTT | TGCCTGAAGA | TTTGTGTGTT | 360 |
| | TATACCTTACA | ACAGAGAAAG | GACTTTAATC | ACTGACCATC | CCAATATACA | GAATCATTTG | 420 |
| | CATTATCGGG | GCTATGTGGA | GGGAGTTTCA | AAATCAATCCA | TTGCTCTTAG | CGACTGTTTT | 480 |
| | GGACTCAGAG | GATTGTCTGCA | TTTAGAGAAT | GCGAGTTATG | GGATTGAACC | CCTGCAGAAC | 540 |
| | AGCTCTCATT | TTGAGCACAT | CATTATCGA | ATGGATGATG | TCTACAAAGA | GCCTCTGAAA | 600 |
| | TGTGGAGTTT | CCAACAAGGA | TATAGAGAAA | GAAACTGCAA | AGGATGAAGA | GGAAGAGCCT | 660 |
| 10 | CCCAGCATGA | CTCAGCTACT | TGGAAGAAGA | AGAGCTGTCT | TGCCACAGAC | COGGTATGTG | 720 |
| | GAGCTGTTCA | TTTCTGTAGA | CAAGGAAGGG | TATGACATGA | TGGGAAGAAA | TCAGACTGCT | 780 |
| | GTGAGAGAAG | AGATGATTCT | CTGCGCAAA | TACTTGGATA | GTATGTATAT | TATGTTAAAT | 840 |
| | ATTGCAATTG | TGCTAGTTGG | ACTGGAGATT | TGGACCAATG | GAAACCTGAT | CAACATAGTT | 900 |
| | GGGGGTGCTG | GTGATGTGCT | GGGSAACTTC | GTGCACTGGC | GGGAAAAGTT | TCTTATCACA | 960 |
| | CGTCGGAGAC | ATGACAGTGC | ACAGCTAGTT | CTAAGAAAG | GTTTGTGTGG | AACTGCAGGA | 1020 |
| 15 | ATGGCATTGG | TGGGAAGATT | GTGTTCAAGG | AGCCACACAG | GCGGATTA | TGTGTTTGG | 1080 |
| | CAATTCACGT | TGGAGACATT | TGCTTCAATT | GTGCTCATG | AAATGGGTCA | TAATCTTGG | 1140 |
| | ATGATACAG | ATGATGGGAG | AGATTGTTCC | TGTGGAGCAA | AGAGCTGCAT | CATGAATTCA | 1200 |
| | GGAGCATCGG | GTTCAGAAA | CTTTAGCAGT | TGCAGTGCAG | AGGACTTTGA | GAAGTTAACT | 1260 |
| 20 | TTAATAAAG | GAGGAAACTG | CCTTCTTAAT | ATTCCAAAGC | CTGATGAAGC | CTATAGTGCT | 1320 |
| | CCCTCTGTG | GTATTAAGTT | GGTGGACGCT | GGGGAAGAGT | GTGACTGTGG | TACTCCAAAG | 1380 |
| | GAATGTGAT | TGGACCTTGT | CTGCGAAGGA | AGTACCTGTA | AGCTTAAATC | ATTTCCTGAG | 1440 |
| | TGTGCATATG | GTGACTGTGT | TAAAGACTGT | CGGTTCCTTC | CAGGAGGTAC | TTTATGCCGA | 1500 |
| | GGAAAAACCA | GTGAGTGTGA | TGTTCCAGAG | TACTGCAATG | GTCTTCTCA | GTCTGTCTAG | 1560 |
| 25 | CCAGATGTTT | TTATTCAGAA | TGATATCTCT | TGCCAGATA | ACAAAGCCTA | TTGCTACRAC | 1620 |
| | GGCATGTGCC | AGTATTTATG | TGCTCAATGT | CAAGTCATCT | TGGGCTCAAA | AGCCAGGCT | 1680 |
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| | TCTCTCGCA | ATGAATACAA | GAAGTGTGCC | ACTGGGAATG | CITTTGTGTG | AAAGCTTCA | 1800 |
| | TGTGAGAAAG | TACAAGAGAT | ACCTGTATTT | GGAAATGTGC | CTGCTAATAT | TCAAAGCCT | 1860 |
| 30 | AGTCAGAGCA | CCAAATGTGT | GGGTGTGGAT | TTCCAGCTAG | GATCAGATGT | TCCAGATCTT | 1920 |
| | GGGATGGTTA | ACGAAGGCAC | AAAATGTGTT | GCTGGAAAGA | TCTGTAGAAA | CTTCCAGTGT | 1980 |
| | GTAGATGCTT | CTGTTCGAA | TTATGACTGT | GATGTTTACA | AAAAGTGTCA | TGGACATGGG | 2040 |
| | GTATGTATTA | GCAATAAGAA | TTGTCACTGT | GAATGTGGCT | GGGCTCCCC | AAATGTGTAG | 2100 |
| | ACTAAAGGAT | ACGAGGGAAG | TGTGGACAGT | GGACCTACAT | ACAATGAAT | GAATCTGCA | 2160 |
| 35 | TTGAGGGACG | GACTTCTGGT | CTTCTTCTTC | CTAATGTGTC | CCCTTATGT | CTGTGCTATT | 2220 |
| | TTTATCTTCA | TCAAGAGGGA | TCAACTGTGG | AGAAGCTACT | TCAGAAAGAA | GAGATCACAA | 2280 |
| | ACATATGATG | CAGATGGCAA | AAATCAAGCA | AACCTTCTTA | GACAGCCGGG | GAGTGTTCCT | 2340 |
| | CGACATGTTT | CTCCAGTGAC | ACCTCCAGCA | GAAGTTCCTA | TATATGCAAA | CAGATTGTCA | 2400 |
| | GTACCAACCT | ATGCAGCCAA | GCAACCTCAG | CAGTTCCTAT | CAAGGCCACC | TCCACCACAA | 2460 |
| 40 | CCGAAGTAT | CATCTCAGGG | AAACTTAAT | CCTGCCCGTC | CTGCTCCTGC | ACCTCCTTTA | 2520 |
| | TATAGTTCCC | TCACCTGATT | TTTTTAACCT | TCTTTTGTGA | AATGTCTTCA | GGGAAGTGTG | 2580 |
| | CTAATACTTT | TTTTTTTCT | TGATGTTTCT | TTGAAAAGCC | TTTCTGTGTC | AACATGAAT | 2640 |
| | GAACAACAAA | TACGACAAA | CAGACTTCAC | TACACAGAA | AAACAGAAAC | TGATGTGTAG | 2700 |
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| | AACATGTGAT | AATCTAATAC | CTGTGAAAC | TGACTAATCA | GCTGCCAATA | ATATCTAATA | 3000 |
| | TTTTTCATCA | TGCAOGAAT | AATAATCATC | ATACTCTAG | ATCTTGTCTG | TCACTCACTA | 3060 |
| 50 | CATGAATAAG | CAATATTTGT | CTTCAAAAGA | ATGCACAAGA | ACCACAATTA | AGATGTCTAT | 3120 |
| | TTATTTTGAA | AGTACAAAAT | ATACTAAAAG | AGTGTGTGTG | TATTCACGCA | GTTACTCGCT | 3180 |
| | TCCATTTTAA | TGACCTTTCA | ACTATAGGTA | ATAACTCTTA | GAGAAATTA | TTTAATATTA | 3240 |
| | GAATTTCTAT | TATGATTTAT | GTGAAGCAT | GACATTOGTT | CACATAGCA | CTATTTTAAA | 3300 |
| | TAAATTATAA | GCTTTAAGGT | ACGAAGTATT | TAATAGATCT | AATCAAATAT | GTGATTCAT | 3360 |
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| 55 | CTTGAGAATT | ATGAGAGCAC | TTTAAATCT | GAACCTTCAA | AGCTTGCTAT | TAATCATTTT | 3480 |
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Seq ID NO: 450 Protein sequence
Protein Accession #: NP_003807.1

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| 65 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | | |
| 70 | MGSGARFPPSG | TLKVRNLLLL | GLVGPVLGAA | RPGFQQTSHL | SSYEIITPWR | LTREERREAPR | 60 |
| | PYSKQVSYVI | QABGKEHIH | LEENKOLLPE | DFVVYTYNKE | GLITDHPNI | QNHCHYRGYV | 120 |
| | EGVENSSIAL | SDCFGLRGLL | HEENASYGLE | PLQSSSHFEH | IYRMDVYK | EPKCGVSNK | 180 |
| | DIEKETAKDE | EEEPPEMTQL | LRERRAVLEQ | TRYVELPIVV | DKERYDMGR | NQTAVREMI | 240 |
| | LLANYLDSMY | IMINIRIVLV | GLEIWTNGNL | INIVGGAGDV | LGNFVQWREK | FLITRRRHS | 300 |
| | AQLVLKKGFG | GTAGMAPVGT | VCSRSHAGGI | NVFGQITVET | FASIVAHLEK | HNLOMNHIDG | 360 |
| 75 | RDCSCGAKSC | IMNSGAGSGR | NFSSCSAEDP | EKLTLNKGNN | CLLNIKPKDE | AYSAPSCGNK | 420 |
| | LVDAGEECDC | GTPKSCBLDP | CCEGSTCKLK | SFASCAVQDC | CKDCRFLPGG | TLCRGTSEK | 480 |
| | DVPEYCNSSS | QFQCPDVFIQ | NGYPCQNNKA | YCYNMGQYY | DAQCQVIFGS | KAKAAPKDCF | 540 |
| | IEVNSKGRDR | GNGCFQNGEY | KKCATGNALC | GKLQCNVQRE | IPVFGIVPAI | IQTPSRGTCK | 600 |
| | WGVDLQGLSD | VPDFGMVNEG | TKCGAGKICR | NFQCVDAEVL | NYDCDVQKKC | HGHGVCSNKK | 660 |
| 80 | NCHCENGWAP | PNCEITKYGG | SVDSGPTYNE | MNTALRDGLL | VFFFLIVPLI | VCAIFIFIKR | 720 |
| | DQLWRSYFRK | KRQTYESDS | KNQANPSRQP | GSPVPRHVSFV | TPPREVPTIYA | NRAFAVPTIYA | 780 |
| | KPQFPFPRP | PPQPKVSQ | GMLIPARPA | APPLYSSLT | | | |

Seq ID NO: 451 DNA sequence
Nucleic Acid Accession #: NM_016650.1
Coding sequence: 196..789

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5      1      11      21      31      41      51
      |      |      |      |      |      |
      GGTTCATAA  TATGCAGATG  TCTCGATATA  GGAATGAAAT  TACGTCTTTG  GAACAACITTA  60
AATAAGTCAA  ATATACTTGG  AGCTTTAAAA  ATTAAAAGGA  GAGAGATTCTG  AGCACCTTTT  120
CTGCTGCCAT  GACAACCATG  CAAGGAATGG  AACAGGCCAT  GCCAGGTTG  GCCTGGTGTG  180
CCCCAGCTGG  GAAACATGGC  TGTACATCAT  TCACATCTGT  GGAAGGATT  GCAAGAGAAG  240
TTCTTGAGG  GAGAACCCTAA  AGTCCCTGGG  GTTGTGCAGA  TTCTGACTGC  CCTGATGAGC  300
CTTAGCATGG  GAATAACAAT  GATGTGTATG  GCATCTAATA  CTTATGGAAG  TAACCTTATT  360
TCCGTGCATA  TCGGGTACAC  AATTTGGGGG  TCAGTAATGT  TTATTATTTC  AGGATCCTTG  420
TCAATTGCAG  CAGGAATTAG  AACTACAAA  GGCTTGGTCC  GAGGTAGTCT  AGGAATGAAT  480
ATCACCAGCT  CTGTACTGGC  TGCATCAGGG  ATCTTAATCA  ACACATTTAG  CTTGGCGTTT  540
TATTCACTCC  ATCACCCTTA  CTGTAACTAC  TATGGCAACT  CAAATAATTG  TCATGGGACT  600
AAGTCCATCT  TAATGGGTCT  GGATGGCATG  GTGCTCCTCT  TAAGTGTGCT  GGAATTCCTG  660
ATTGCTGTGT  CCTCTCTGCT  CTTTGGATGT  AAAGTGTCT  GTGTATCCCT  TGGTGGGGTT  720
GTGTTAATTC  TGCCATCACA  TTCTCACATG  GCAGAAACAG  CATCTCCCTC  ACCACTTAAT  780
GAGGTTTGAG  GCCAACAAA  GATCAACAGA  CAAATGCTCC  AGAATCTAT  GCTGACTGTG  840
ACACAGAGGC  CTCACATGAG  AAATTACCAG  TATCCAACCT  CGATACTGAT  AGACGTGTTG  900
ATATTATAT  TAATTTAAT  CCAATTATGA  ACTGTGTGTG  TATAGAGAGA  TAATAAATTC  960
AAAATTATGT  TCTCATTTT  TTCCCTGGAA  CTCATAACT  CACTTCATG  GCTCTTTATC  1020
GAGAGTACTA  GGAGTTAAAT  TAATAAATA  TGCATTTAAT  GAGGCCACAG  GAAAAA

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Seq ID NO: 452 Protein sequence
Protein Accession #: NP_057734.1

```

30      1      11      21      31      41      51
      |      |      |      |      |      |
      MAVIHSHLWK  GLQEKFLKGE  PKVLGVVQIL  TALMSLSMGI  TMMCMASNTY  GSNPISVHIG  60
YTIWGSVMFI  ISGSLSLAAG  IRTTKSLVRG  SLGMNITSSV  LAASGILINT  FSLAFYSFHH  120
PYCNYYGNSN  NCHGTMSTILM  GLDGMVLLLS  VLEKCLAVSL  SAFCKXVLCC  TPGGVVLLLP  180
SHSHMASTAS  PTPLENV

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Seq ID NO: 453 DNA sequence
Nucleic Acid Accession #: NM_002091.1
Coding sequence: 56..503

```

40      1      11      21      31      41      51
      |      |      |      |      |      |
      AGTCTCTGCT  CTTCOCAGCC  TCCTCGGCGC  GCTCCAAGGG  CTTCOCCTCG  GGACCATGCG  60
CGGCAGTGGG  CTCCCGCTGG  TCTGCTGGC  GCTGCTCTCT  TGCTAGCGC  CCGGGGGCG  120
AGCGTCCCG  CTGCTGCGG  GCGGAGGGAC  CGTGTCTGAC  AAGATGTACC  CGCGCGGCAA  180
CCACTGGCG  GTGGGGCACT  TAATGGGGA  AAAGAGCACA  GGGGAGTCTT  CTTCTGTTTC  240
TGAGAGAGGG  AGCTCTAAGC  AGCAGCTGAG  AGAGTACATC  AGGTGGGAAG  AAGCTGCAAG  300
GAATTGCTG  GGTCTCATAG  AAGCAAAGGA  GRACAGAAAC  CACCAAGCC  CTCACCCCA  360
GGCCTTGGG  AATCAGCAGC  CTTCTGTGGA  TTCAGAGGAT  AGCAGCAACT  TCAGAGATGT  420
AGTTCAAAA  GGCAGAGTTG  GTAGACTCT  TGCTCCAGGT  TCTCAACCTG  AAGGAGGAA  480
CCCCAGCTG  AACCAGCAAT  GATAATGATG  GCCTCTCTCA  AAAGAGAAAA  ACAAAACCCC  540
TAAGAGACTG  AGTCTCTCAA  GCATCAGTTC  TACGATCAT  CAACAAGATT  TCTTGTGCA  600
AAATATTGA  CTATTCTGTA  TCTTCTATCC  TTGACTAAAT  TCGTGTATTT  CAAGCAGCAT  660
CTTCTGGTT  AACTTGTGTT  GCTGTGAACA  ATTGTGAAA  AGAGTCTTCC  AATTATGCT  720
TTTTATATC  TAGCTACCT  GTTGTGTAGA  TTCAGGCCCC  CGAGCTGTTA  CCAATTCACAA  780
TAAAGCTTA  AACACAT

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Seq ID NO: 454 Protein sequence
Protein Accession #: NP_002082.1

```

60      1      11      21      31      41      51
      |      |      |      |      |      |
      MRGSELPLVL  LALVLC LAPR  GRAVPLEAGG  GIVLTMYPR  GNHWAVGHELM  GKSTGESSS  60
VSEKSLKQD  LRYIRWEBA  ARNLLGLIEA  KENRRHPPQ  PKALGNQPS  NDSKSSNFK  120
DVSGKGVGR  LSPGSGREG  RNPQLNQ

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Seq ID NO: 455 DNA sequence
Nucleic Acid Accession #: NM_016522.1
Coding sequence: 265..1299

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70      1      11      21      31      41      51
      |      |      |      |      |      |
      GCGGAAGCAG  CGAGGAGGGA  GCCCCCTTTG  GCGTCTCTCC  GTGGAACCGG  TTTCGAGGG  60
CTGGCAAAAG  CCGAGGCTGG  ATTGGGGGA  GGAATATTAG  ACTCGAGGA  GTCTGCGGC  120
TTTTCTCTC  CCGCGGCTC  CCGGTGCGG  CGGCTCAC  GCTCAGTCCC  CGCGTCTGCT  180
CGCACCCCA  CCACTTCTCT  GTGCTGCGCC  GGGGGGGGTG  TGCGTGCGB  CTGCGGAGT  240
TGGGGGAAGT  TGTGGCTGTC  GAGAATGGGG  GTCTGTGGGT  ACCTGTCTCT  GCCTTGGAG  300
TGCTGTGGT  TGCTGTCTCT  CAGGCTGCTG  TTCTTGTAC  CCACAGGAGT  GCCTGTGCG  360
AGCGGAGATG  CCACTTCTCC  CAAAGCTATG  GACACGTA  CGGTGCGGCA  GGGGGAGAGC  420
GCCACCTCA  GTGCACTAT  TGACACCGG  GTCAACCGG  TGCTCTGGCT  AAACCGCAGC  480
ACCTCTCTCT  ATCTGGGGA  TGACAGTGG  TGCTTGGATC  CTGCGTGTGT  CTTCTGAGC  540
AACACCCAA  CGCAGTACAG  CATCGAGATC  CAGAACGTTG  ATGTGTATGA  CGAGGGCCCT  600
TACCTCTCT  CGGTGCAGAC  AGACACCCAC  CCAAGACCT  CTAGGGTCCA  CCTCATTTG  660
CAGATATCT  CCAAAATGT  AGAGATTCT  TCAGATATCT  CCAATTAATGA  AGGGAACAT  720
ATTAGCCCA  CCGCATAGC  AACTGGTGA  CAGAGCCCTA  CGGTACTTG  GAGACATC  780

```

TCTCCAAAG CGGTGGCTT TGTGAGTGAA GACGAATAC TGGAAATCA GGGCATCAC 840
 CGGGAACAGT CAGGGGACTA CGAGTGCAGT GCCTCCAATG ACGTGGCCGC GCCCGTGGTA 900
 CGGAGAGTAA AGGTACACGT GAACTATCCA CCAATACATT CAGAAGCCAA GGGTACAGGT 960
 GTCCCCGTGG GACAAAAGGG GACACTGCAG TGTGAAGCCT CAGCAGTCCC CTCAGCAGAA 1020
 TTCCAGTGGT ACAAGGATGA CAAAAGACTG ATTGAAGGAA AGAAAGGGGT GAAAGTGGAA 1080
 AACAGACCTT TCCTCTCAAA ACTCATCTTC TTCAATGTCT CTGAACATGA CTATGGGAAC 1140
 TACACTTGGT TGGCTCCAA CAAGCTGGGC CACACCAATG CCAGCATCAT GCTATTTGGT 1200
 CCAGGCGCCG TCAGCGAGGT GAGCAACGAC ACGTCGAGGA GGGCAGGCTG CGTCTGGCTG 1260
 CTGCCCTCTC TGGTCTTGCA CCTGCTTCTC AAATTTTGGT GTGAGTGCCA CTTOCCCAAC 1320
 CGGGAAAGGC TGCCGCCACC ACCACCACCA ACACAACAGC AATGGCAACA CCGACAGCAA 1380
 CCAATCAGAT ATATACAAAT GAAATTAGAA GAAACACAGC CTCATGGGAC AGAAATTGTA 1440
 GGGAGGGGAA CAAAGAATAC TTTGGGGGGA AAAGAGTTT AAAAAGAAA TTGAAATTG 1500
 CCTTGAGAT ATTAGGTAT AATGGAGTT TCTTTCCCA AACGGGAAGA ACACAGCACA 1560
 CCGGCTTGG ACCCACTGCA AGCTGCATCG TGCAACCTCT TTGGTGCCAG TGTGGGCAAG 1620
 GGCTCAGCTG TGCCGCCACC AGACTGCCCC CAGCTGGAAC ATTCTGGAGC TGGCCATCCC 1680
 AAATTCATC AGTCCATAG GACGAACAGA ATGAGACTCT CCGGCCCAAG CGTGGCGCTT 1740
 CGGGCCCAAG CTTGGGCTG CGGGCACTTT GGTAGACTGT GCCACCACGG CGTGTGTGT 1800
 GAAACGTGAA ATAAAAAGAG CAAAAAATA AAAAAAAA

Seq ID NO: 456 Protein sequence
 Protein Accession #: NP_057606.1

1 11 21 31 41 51
 MGVCGLFLP NKCLVVSRLR LFLVPTGVP VRSGDATFPK AMDNVTVRQG ESATLRCTID 60
 NRVTRVANLN RTILYAGMD KNCIDPRVVL LSNITQYSI EIQNVVDYDE GPYTCVQTD 120
 NHPKTSRVHL IVQVSPKIVE IBEDISINEG MNISLTCIAT GRPEPTVTHR HISPRAVGFV 180
 SEDEYLIQIG ITRERQSDYB CSASNDVAAP VVRVKVTVN YPFYISEAKG TGVFVGQKGT 240
 LQCEASAVPS AEFQWYKDDK RLIEGKKGVK VERNPFSLKL IFNVSEHDY GNYTCVASNK 300
 LGHTNASIML PEGAVSEVS NGTSRRAGCV WLLPLVLHL LLKF

Seq ID NO: 457 DNA sequence
 Nucleic Acid Accession #: NM_012261.1
 Coding sequence: 203..1045

1 11 21 31 41 51
 GATTTCCTCT GCCAGCAGCT GTCCGTGCGG CGCTCGACAC CGAGTCTCTAG CTAGGCGCTC 60
 ACAGAAATACG CGCTCCCTCC CTCCTCCCTTC TCTGTCCCCC GCTCTCTGCT CACCCCGGCC 120
 CACTCCAGGG GCGACTTTGA GGGATTCCTT CTCTGGCGGC CTCTGCAGCA GCACAGCCGG 180
 CCTCATTCGG GGCAGTGGGA GTATGGATCT CCAAGGAAGA GGGGTCCCA GCATCGACAG 240
 ACTTCAGATT CTCTGTATGT TGTTCATAC AATGGCTCAA ATCATGGCAG AACAGAAAT 300
 GGAAATCTC TCAGGCCCTT CCACTAACCC TGAATAAGAT ATATTGTGG TGGGGGAAA 360
 TGGGACGCGT TGTCTCATGG CAGAGTTTGC AGCCAAATTT ATTGTACCTT ATGATGTGTG 420
 GGCCAGCAAC TACTATGATC TGATCACAGA ACAGGCCGAT ATCGCATIGA CCGGGGAGC 480
 TGAGGTGAAG GCGCGCTGTG GCCACAGCCA GTCCGAGCTG CAAGTGTCTT GGTGGATCG 540
 CGCATATGCA CTCAAATATC TCTTTGTAAA GGAAGCCAC AACATGTCCA AGGGACCTGA 600
 GGGGACTTGG AGGCTGAGCA AAGTGCAGTT TGTCTACGAC TCCTCGGAGA AAACCTACTT 660
 CAAAGACGCA GTCACTGCTG GGAAGCACAC AGCCAACTCG CACCACCTCT CTGCTTGGT 720
 CACCCCGCTT GGAAGTCTT ATGAGTGTCA AGCTCAACAA ACCATTTCAC TGGCTCTAG 780
 TGATCGGCGA AAGAGCTGCA CCATGATCTT GTCTGCGGTC CACATCCAAC CTTTGTACAT 840
 TATCTCAGAT TTTGTCTTCA GTGAAGAGCA TAAATGCCCA GTGGATGAGC GGGAGCACT 900
 GGAAGAAACC TTGCCCCGTA TTTGGGGCT CATCTGGGC CTGCTCATCA TGGTAACACT 960
 CGCGATTAC CAGCTCCACC ACAAAATGAC TGCCAAACAG GTGCAGATCC CTGGGACAG 1020
 ATCCAGATAT AAGCAGATGG GCTAGAGGCC GTTAGGCAGG CACCCCTAT TCTGTCTCCC 1080
 CCAACTGGAT CAGGTAGAAC AACAAAAGCA CTTTCCATC TTGTACACGA GATACACCAA 1140
 CATAGCTACA ATCAACAGG CTTGGGTATC TGAGGCTGTC TTGGCTGTG TCATGCTTA 1200
 AACCACGGA AGGGGAGAGC TCTTCGGAT TTGTAGGGT AAATGGCAAT TATCTCTCC 1260
 ATGCTGGGGA GAGAGGGAGG AGGGTCTCAG ACAGCTTTCG TGCTCATGGT GGTCTGCTT 1320
 TGACTCTCCA AAGAGCAATA AATGCCACTT GAGCTGTAT CTGGCCCAA AGTTTAGGGA 1380
 TTGAAACAT GCTTCTTTGA GAGGAAACCC CCTTAGGTT CAGAGAATA TGGGGTGGT 1440
 TGCTCCCTG GACACAGCTG GCTTATCTTA TACAGTTGTC AATGCACACA GAATACAACC 1500
 TCATGCTCCC TGCAGCAGA CCGCTGAAAG TGATTCATGC TTCTGGCTGG CATCTGCAT 1560
 GTTTAGTGAT TGTCTTGGGA ATGTTTCACT GCTACCCGCA TCCAGCGACT GCAGCACCAG 1620
 AAAACGACTA ATGTAACTAT GCAGAGTGT TTGGACTTCT TCCTGTGCCA GGTCCAAGTC 1680
 GGGGACCTG AAGAATCAAT CTGTGTGAGT CAGTTTTTCA AAATGAAATA AAACACACTA 1740
 TTCTCTGGC

Seq ID NO: 458 Protein sequence
 Protein Accession #: NP_036393.1

1 11 21 31 41 51
 MDLQGRGVPS IDRLRVLLML PHTMAQIMAE QEVENLSGLS TNPERDIFVV RENGTTCLMA 60
 EFAAKFIVPY DWASNYVDL ITEQADIALT RGAEVKRGCG HSQSELQVFW VDRAYALKML 120
 FVKESHENMK GPSATWRLSK VQFVYDSSEK THFQDAVSAG KHTANSHHLS ALVTFAKSKY 180
 ECQAQQTISL ASDDPKFTV MILSAVHIQF FDIISDFVPS REHKCPVDER BQLBSTLPLI 240
 LGLILGLVIM VTLAIYVHH KMTANQVQIP RDRSQYKMG

Seq ID NO: 459 DNA sequence
 Nucleic Acid Accession #: NM_001169.1
 Coding sequence: 85..870

1 11 21 31 41 51

5
10
15
20
25

| | | | | | | |
|------------|------------|------------|------------|------------|------------|------|
| | | | | | | 60 |
| TAGGAGATAA | GAGTATCTTG | CACAGCAGGT | GCAGGTTTCC | CAGCAGCTCA | GGCAAGAGTC | |
| CGATGTTTGT | GCCATCTGAT | CCTGATGTCT | GGAGAGATAG | CCATGTGTGA | GCCTGAATTT | 120 |
| GGCAATGACA | AGGCCAGGGA | GCCGAGCGTG | GSTGGCAGGT | GGCGAGTGTC | CTGGTACGAA | 180 |
| CGGTTTGTGC | AGCCATGTCT | GGTCGAACTG | CTGGGCTCTG | CTCTCTTCAT | CTTCATCGGG | 240 |
| TGCCGTGCGG | TCATTGAGAA | TGGGACGGAC | ACTGGGCTGC | TGCAGCCGGC | CCTGGCCAC | 300 |
| GGGCTGGCTT | TGGGCTCGT | GATTGCCACG | CTGGGGAATA | TCAGTGGTGG | ACACTTCAAC | 360 |
| CTTGCCTGTG | CCCTGGCAGC | CATGCTGATC | GGAGGCTTCA | ACCTGGTGAT | GCTCCTCCCG | 420 |
| TACTGGGTCT | CACAGCTGCT | CGGGGGGATG | CTCGGGCTG | CCTTGGCCAA | GGTGGTGAGT | 480 |
| CTGAGGAGA | GCTTCTGGAA | TGCATCTGGG | GCGGCTTTG | TGACAGTCCA | GGAGCAGGGG | 540 |
| CAGGTGGCAG | GGGCTTGGT | GGCAGAGATC | ATCCTGACGA | CGCTGTGSC | CCTGGCTGTA | 600 |
| TGCATGGGTG | CCATCAATGA | GAAGACAAAG | GGCCCTCTGG | CCCCGTTCCT | CATCGGCTTT | 660 |
| GGGCTCACCG | TGGATATCCT | GGCTGGGGGC | CCTGTGTCTG | GAGGCTGCAT | GAATCCCGCC | 720 |
| OGTCTTTTG | GACCTGCGGT | GSTGGCCAA | CACCTGGAAT | TCCACTGGAT | CTACTGGCTG | 780 |
| CGGCCACTCC | TGGCTGGCCT | GCTTGTGGGA | CTGCTCATT | GGTGCTTCAT | TGGAGATGGG | 840 |
| AAGACCCGCC | TCATCTTGAA | GGCTGGGTGA | GCAGAGCTCG | TGGGATTCCT | GCTGCTCCAG | 900 |
| GTGTCTTCAG | CTCACCTGTC | CCAGACTGAG | GACAGGGGAG | TTCTTGCAAT | TCCTGCCAGG | 960 |
| CGAGAGGCC | AGAGGAGCGA | CCCCCTGCTT | CCACTGCTTG | GGCCTGCTTT | CTCAGATAGA | 1020 |
| CTGACTGCTG | AGGAGGCTCT | AGGTTCTTGG | AATTCCTTGG | TGCTCATCAG | AGACCCGAGC | 1080 |
| CTGGGGAACA | CGCTGCCCCG | ACTGCCAGA | GAGCAGTGCA | AACACCCACA | CACGAGCGTG | 1140 |
| TTTCTTGAGA | GGAAATGTCC | CGAGTGGAC | AAGGAGGCTG | TTCTGTCACA | TCAGCTCATT | 1200 |
| TCCGCGACCC | CATTCTCTGC | TTGATTGCTT | TGTGGGGGGC | CTGGCCACTT | CCTTCTCTCT | 1260 |
| CAAGCTGACA | ATTCTCACTT | TGCATAAAT | AGTCCAGTGT | TTCTTTCAT | | |

Seq ID NO: 460 Protein sequence
Protein Accession #: NP_001160.1

30
35

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| | | | | | | 60 |
| MSGRIAMCEP | EFENDKAREP | SVGGRNRVSW | YERFVQPCLV | ELLGSALFIF | IGCLSVIENG | |
| TDIGLLQPAL | AHGLALGLVI | ATLGNISGGH | FNPVSLAAM | LIGGLNLVNL | LPYVWSQLG | 120 |
| GMLGAALAKV | VSPERFWNA | SGAAFVTVQE | QQVAGALVA | EIILLTLAL | AVCMGAINER | 180 |
| TKGPLAPFSI | GFAVTVDILA | GGFVSGGCMN | PARAFGPVAV | ANHWNEHWIY | WLGPLLALGL | 240 |
| VGLLIRCFIG | DGKTRLILKA | R | | | | |

Seq ID NO: 461 DNA sequence
Nucleic Acid Accession #: NM_003226.1
Coding sequence: 2..226

40
45
50

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| | | | | | | 60 |
| GATGCTGGGG | CTGGTCTCGG | CCTTGTCTTC | CTCCAGCTCT | GCTGAGGAGT | ACGTGGGCCT | |
| GTCTGCAAA | CAGTGTGCCG | TGCCGGCCAA | GGACAGGGTG | GACTGCGGCT | ACCCCCATGT | 120 |
| CACCCCCUAG | GAGTGCAACA | ACCGGGGCTG | CTGCTTTGAC | TCCAGGATCC | CTGGAGTGCC | 180 |
| TTGGTGTTC | AAGCCCCTGA | CTAGGAAGAC | AGAATGCACC | TTCTGAGGCA | CCTCCAGCTG | 240 |
| CCCCGGGAT | GCAGGCTGAG | CACCTTGGC | CGGCTGTGAT | TGCTGCCAGG | CACCTGTTCAT | 300 |
| CTCAGTTTTT | CTGTCCCTTT | GCTCCCGGCA | AGCTTCTGTC | TGAAAGTCA | TATCTGGAGC | 360 |
| CTGATGTCTT | AACGAATAAA | GGTCCCATGC | TCCACCGG | | | |

Seq ID NO: 462 Protein sequence
Protein Accession #: NP_003217.1

55
60

| | | | | | | |
|------------|------------|------------|------------|-----------|------------|----|
| | | | | | | 60 |
| MLGLVLALLS | SSSAREYVGL | SANQCAVPAK | DRVDCGYPHV | TPKECNRRC | CFDSRIPGVF | |
| WCFKPIRTKT | ECTP | | | | | |

Seq ID NO: 463 DNA sequence
Nucleic Acid Accession #: NM_002993.1
Coding sequence: 64..408

65
70
75
80

| | | | | | | |
|------------|------------|------------|------------|------------|------------|------|
| | | | | | | 60 |
| GGCACGAGCC | AGTCTCCGCG | CCTCCACCCA | GCTCAGGAAC | CGCGGAACCC | TCTCTTGACC | |
| ACTATGAGCC | TCCCGTCCAG | CGCGCGCGCC | CGTGTCCGCG | GTCCTTCGGG | CTCCTTGTC | 120 |
| GCCTGTCTCG | CGCTGCTGCT | CCTGCTGAGG | CGCGCGGGCC | CCCTGCGCAG | CGCTGGTCTT | 180 |
| GTCTCTGCTG | TGCTGACAGA | GCTGCGTTGC | ACTTGTTTAC | GGCTTAAGCT | GAGAGTAAAC | 240 |
| CCCAAAACGA | TTGGTAAACT | GCAGGTGTTT | CCCGCAGGCC | CGCAGTGCTC | CAAGGTGGAA | 300 |
| GTGGTAGCCT | CCCTGAAGAA | CGGGAAGCAA | GTTTGTCTGG | ACCCGGAAGC | CCCTTTTCTA | 360 |
| AAGAAAGTCA | TCCAGAAAT | TTTGACAGT | GGAAACAAGA | AAAAGTGAAT | AACAAAGAA | 420 |
| ACCATGCATC | ATAAATTTGC | CCAGTCTTCA | GCGGAGCAGT | TTTCTGGAGA | TCCCTGGACC | 480 |
| CAGTAAGAA | AAGAAGGAAG | GGTGGTTTT | TTTCCATTTT | CTACATGGAT | TCCCTACTTT | 540 |
| GAGAGGTGTG | GGGGAAGGCC | TACGCTTCTC | CCTGAAGITT | ACAGCTCAGC | TAATGAAGTA | 600 |
| CTAATATAGT | ATTTCACCTA | TTTACTGTGA | TTTAACTGTA | TAAGTTATTG | AACCTTTTGG | 660 |
| CAATTGACCA | TATTGTGAGC | AAGAATTCAC | TGTTATTAG | TCITTCATG | AATATTGAAT | 720 |
| TGAAGATAAC | TATTGTATTT | CTATCATACA | TTCTTAAAG | TCITACCGAA | AAGGCTGTGG | 780 |
| ATTTGTATG | GAAATAATGT | TTTATTAGTG | TGCTGTGGAG | GGAGGTATCC | TGTTGTCTT | 840 |
| ACTCACTCTT | CTCATAAAT | AGGAATAATT | TTAGTTCTGT | TTTCTGGGG | AATATGTTAC | 900 |
| TCTTTACCTT | AGGATGCTAT | TTAAGTTGTA | CTGTATTAGA | ACACTGGGTG | TGTCATACCG | 960 |
| TTATCTGTGC | AGAAATATTT | TCCTTATTC | GAATTTCTAA | AAATTTAAGT | TCTGTAAAGG | 1020 |
| CTAATATATT | CTCTTCTAT | GGTTTATAGT | GTTTGAATGC | TTCTTAGTAT | GGCATAATGT | 1080 |
| CATGATTTAC | TCATTAAACT | TTGATTTTGT | ATGCTATTTT | TTACATATAG | GATGACTATA | 1140 |

ATTCTGGTCA CTAATATATAC ACITTAGATA GATGAAGAAG CCCAAAAACA GATAAATTCC 1200
 TGATTGCTAA TTACATAGA AATGTATTC CTGGTTTTT TAAATAAAG CAAATTAAC 1260
 AATGATCTGT GCTCTGCAAA GTTTTGAAA TATATTTGAA CAATTTGAAT ATAAATTCAT 1320
 CATTAGTCC TCAAAATATA TACAGCATTG CTAAGATTTT CAGATATCTA TTGTGGATCT 1380
 TTTAAAGGTT TTGACCATTT TGTATGAGG AATTATACAT GTATCACATT CACTATATTA 1440
 AAATTGCACT TTTATTTTTT CCTGTGTGC ATGTTGGTTT TTGTACTTG TATTGTCAAT 1500
 TGGAGAAACA ATAAAGATT TCTAAACCA AAAAAA AAAAAA

Seq ID NO: 464 Protein sequence
 Protein Accession #: NP_002984.1

1 11 21 31 41 51
 MSLPSSRAAR VPGPSGSLCA LLALLLLLP PGLASAGFV SAVLTELRCT CLRVTLRVNP 60
 RTIGKLQVFP AGPQCSKVEV VASLKNKQV CLDPEAPFLK KVIQKILDSG NKN

Seq ID NO: 465 DNA sequence
 Nucleic Acid Accession #: NM_002038.2
 Coding sequence: 108..500

1 11 21 31 41 51
 GAAACCGTTA CTCGTCGCTG TGCCCATCTA TCAGCAGGCT CCGGGCTGAA GATTGCTTCT 60
 CTCTCTCTCT CCAAGGTCTA GTGACGGAGC CCGCGCGCGG CGCCACCATG CCGCAGAGGG 120
 CGGTATCGCT TTCTTGTGTC TACCTGCTGC TCITCACTTG CAGTGGGGTG GAGCAGGTA 180
 AGAAAAAGTG CTCGGAGAGC TOGGACAGCG GCTCCGGGTT CTGGAAGGCC CTGACCTTCA 240
 TGGCGCTCGG AGGAGGACTC GCAGTCGCGG GGCTGCCCGC GCTGGGCTTC ACCGGCGCCG 300
 GCATCGCGGC CAACTCGGTC GCTGCCCTGC TGATGAGCTG GTCTGCEATC CTGAATGGGG 360
 CGCGGCTGCC CGCGGGGGGG CTAGTGGCCA CGCTGCAGAG CCTCGGGGCT GGTGGCAGCA 420
 GCGTGTCTAT AGGTATATAT GTTGCCCTGA TGGGCTACGC CACCCACAGG TATCTCGATA 480
 GTGAGGAGGA TGAGGAGTAG CCAGCAGCTC CCAGAACCCT TCCTTCCTTC TTGGCCTAAC 540
 TCTTCAGTT AGGATCTAGA ACTTTGCCCT TTTTTTTTTT TTTTTTTTTT TTTGAGATGG 600
 GTTCTCACTA TATTGTCCAG GCTAGAGTGC AGTGGCTATT CACAGATGCG AACATAGTAC 660
 ACTGCAGCCT CCAACTCTTA GCCTCAAGTG ATCCTCCTGT CTCACCTCC CAAGTAGGAT 720
 TACAAGCATG CGCCGACGAT GCCCAGATC CAGAACTTTC TCTATCACTC TCCCAACAA 780
 CCTAGATGTG AAAACAGAAT AAACCTCACC CAGAAAA

Seq ID NO: 466 Protein sequence
 Protein Accession #: NP_002029.3

1 11 21 31 41 51
 MRQKAVSLPL CYLLLFCTSG VEAGKKKCBSE SSDSGSGFWK ALTFMAVGGG LAVAGLPALG 60
 FTGAGIAANS VAASLMSNSA ILNGGGVPAG GLVATLQSLG AGGSSVVICN IGALMGYATH 120
 KYLDSSEDEE

Seq ID NO: 467 DNA sequence
 Nucleic Acid Accession #: NM_003469.2
 Coding sequence: 92..1945

1 11 21 31 41 51
 GAAACGGCCC GAGAAGCTCG CCGGAGAAC GGGGAGGAAT ATGCTGTGGA GCTCCTCTGC 60
 CATAAACA AAAAGAGGAA ATCTTTCAA CATGGCTGAA GCAAAGACCC ACTGGCTTGG 120
 AGCAGCCCTG TCCTCTATCC CTTAATTTT CCTCATCTCT GGGGCTGAAG CAGCTTCATT 180
 TCAGAGAAAC CAGCTGTCTC AGAAAGAACC AGCCTCAGG TTGGAATATG TCCAAAGATT 240
 TCCAGTCTCT GAAATGATCA GGGCTTTGGA GTACATAGAA AACCTCCGAC AACAGCTCA 300
 TAGAGAGAA AGCAGCCAG ATTATAATCC CTACCAAGGT GTCTCTGTCC CCGTTCAGCA 360
 AAAAGAAAT GGGGATGAAA GCGACTTGCC CGAGAGGGAT TCAGTGAGTG AAGAAGACTG 420
 GATGAGATA ATACTGGAAG CTTTGAGACA GGCTGAAAT GAGCCTCAGT CTGCACCAA 480
 AGAAATATAG CCTATGCTT TGAATTCAGA AAGAACCTT CCAATGGACA TGAGTGATGA 540
 TTATGAGACA CAGCAGTGGC CAGAAAGAAA GCTTAAGCAC ATGCAATTCC CTCCTATGTA 600
 TGAAGAGAA TCCAGGATA ACCCTTTAA AGGCACAAAT GAAATAGTGG AGGAACATA 660
 TACTCTCAA AGCCTTGCTA CATTGGAATC TGTCTTCAA GAGCTGGGGA AACTGACAGG 720
 ACCAACAAC CAGAAACGTG AGAGGATGGA TGAGGAGCAA AAACCTTATA CCGATGATGA 780
 AGATGATATC TACAAGGCTA ATAACATTGC CTATGAAGAT GTGTCGGGG GAGAAGACTG 840
 GAACCCAGTA GAGGAGAAAA TAGAGAGTCA AACCCAGAAA GAGGTGAGAG ACAGCAAGA 900
 GAATATAGGA AAAAATGAAC AAATCAACGA TGAGATGAAA CGCTCAGGGC AGCTTGGCAT 960
 CCAGGAAGAA GATCTTGGGA AAGAGAGTAA AGACCACTC TCAGATGATG TCTCCAAAGT 1020
 AATTGCTTAT TTGAAAAGGT TAGTAATGC TGCAGGAGT GGGAGGTTAC AGAATGGGCA 1080
 AATGGGGAA AGGGCCACCA GGCTTTTGA GAAACCTCT GATTCTCAGT CTATTATCA 1140
 GCTGATTGAA ATCTCAAGGA ATTTACAGAT ACCCCAGAA GACTTAATG AGATGCTCAA 1200
 AACTGGGGAG AAGCCGAAAG GATCAGTGGG ACGGAGCGG GAGCTTGACC TTCTGTGTA 1260
 CCTAGATGAC ATCTCAGAGG CTGACTTAGA CCATCCAGAC CTGTTCCAA ATAGGATGCT 1320
 CTCAGAGT GCGTACCTTA AAACACCTGG TCGTGTGGG ACTGAGGCC TACCAGACGG 1380
 GCTCAGTGT GAGGATATTT TAAATCTTT AGGGATGGAG AGTGACAGCA ATCAGAAAAC 1440
 GTGTAATTT CCCAATCCAT ATAACCAGGA GAAAGTTCTG CCAAGGCTCC CTTATGTGTC 1500
 TGAAGATCT AGATGGAACC AGCTTCCAA AGCTGCTGG ATTCACATG TTGAAAACAG 1560
 ACAGTAGGCA TATGAARACC TGAACAGCAA GGATCAAGAA TTAGGTGAGT ACTTGGCCAG 1620
 GATGCTAGT AAATACCTTG AGATCATTAA TTCAACCAA GTGAAGCGAG TTCTGTGTA 1680
 AGGCTCATCT GAGATGACC TGCAGGAAGA GGAACAAAT GAGCAGCCA TCAAGAGCA 1740
 TTTGAATCAA GCGAGCTCTC AGGAGACTGA CAGCTGGCC CCGGTAAGCA AAGGTTCCC 1800
 TGTGGGGCC CCGAAGATG ATGATACCCC AATAGGCCAG TACTGGGATG AAGATCTGTT 1860
 AATGAAGTG CTGGAATACC TCAATCAAGA AAAGCAGAA AAGGGAAGGG AGCATATTG 1920

5 TAAGAGAGCA ATGGAAAATA TGTAAGCTGC TTTCATTAAT TACCCCTACTT TCATTCTCTCC 1980
 CACCCCAAGC AAATCCCAAC ATTTCTCTTC AGTGTGTGA CTCTATCTCT GTTAACACTG 2040
 TAATATCTTT AAATGATGTA CAGGCAGATG AAACCCAGTCT ACTGGGGAGT CTGCTTCATT 2100
 TCCTCTGAGC TGTATCTCTG TGTATGGATA TGTGTAAATG TTATGACTCC TTGATAAAAA 2160
 ATTTATTATG TCCATTATTC AAGAAAGATA TCTATGACTG TGTTTAATAG TATATCTAAT 2220
 GGCTGTGGCA TTGTTGATGC TCACATATGA TAAAAAAGTG TCCTATAAAT CTATTGAAAG 2280
 TTTTAAATAT TTATTGAATT ATTTTGTAC TGTCTGTAGC GTTTTGTGGA GTACTGGACC 2340
 AAAAAAATAA AGCATTATAA ATATA

10 Seq ID NO: 468 Protein sequence
 Protein Accession #: NP_003460.1

15 1 11 21 31 41 51
 MAEAKTHWLG AALSILPLIF LISGASAAAF ORNQLLOKEP DLRLNVQKF PSEPMIRALE 60
 YIENLRQQAQ KEESSPDYNP YQGVSVPLQQ KENGDESHLP ERDSLSEEDW MRILILEALRO 120
 AENEBSAPK ENKPYALNSE KNFPMDSDD YETQWPERK LKHMQPFPMY HENSRDNPFK 180
 RTNEIVEBOY TPQSLATLES VFQELGKLTG FNNQXREEMD ESQKLYTDEE DDIYKANNIA 240
 YEDVVGGEDW NFVEEKLESQ TQEVVRDSKE NIGKNEQIND EMKRSQQLGI QEEDLRKESK 300
 DQLSDDVSKV IAYLKRLVNA AGSGRLQNGQ NGERATRLFE KPLDSQSIYQ LIHISNLQI 360
 PFEDLIEHLK TGEKPNGSVE PERKLDLPVD LDDISEADLD HPDLFQNRML SKSGYFKTPG 420
 RAGTEALPDG LSVEDIINLL GMESAANQKT SYFPNPNQKE KVLPRLPYGA GRSRSNQLPK 480
 AAWIFHVENR QMAYENLNDK DQELGEYLAR MLVKYPEIIN SNQVKRVFGQ GSEDDLQEE 540
 EQIEQAIKEH INQSSSQETD KLAPVSKRFP VGPPKNDTTP NRQYWDDELK MKVLEYLNQE 600
 KAKGGRBIIA KRAMENM

30 Seq ID NO: 469 DNA sequence
 Nucleic Acid Accession #: NM_006398.1
 Coding sequence: 19..516

35 1 11 21 31 41 51
 GGCCCTTGT CTGCAGAGAT GGCTCCCAAT GCTTCTTGCC TCTGTGTGCA TGTCCGTTC 60
 GAGGAATGGG ATTTAATGAC CTTTGATGCC AACCCATATG ACAGCGTGAA AAAAAATCAA 120
 GAACATGTCC GGTCTAAGAC CAAGGTTCCT GTGCAGGACC AGGTTCCTTT GCTGGGCTCC 180
 AAGATCTTAA AGCCACGGAG AGCCCTCTCA TCTTATGCA TTGACAAAGA GAAGACCATC 240
 CACCTTACC TGAAGTGGT GAAGCCCAAT GATGAGGAGC TGCCCTTGT TCTGTGAG 300
 TCAGGTGATG AGGCAAGAG GCACCTCTCT CAGGTGCGAA GGTCCAGCTC AGTGGCACAA 360
 GTGAAAGCAA TGATCGAGAC TAAGACGGGT ATAATCCCTG AGACCCAGAT TGTGACTTGC 420
 AATGGAAGA GACTGGAAGA TGGGAAGATG ATGGCAGATT ACGGCATCAG AAAGGGCAAC 480
 TTACTCTTCC TGGCATCTTA TTGTATTGGA GGGTGACCAC CCTGGGGATG GGGTGTGGC 540
 AGGGGTCAA AAGCTTATTT CTTTAAATCT CTTACTCAAC GAACACATCT TCTGATGATT 600
 TCCCAAAAT AATGAGATG AGATGAGTAG AGTAAGATT GGGTGGGATG GGTAGGATGA 660
 AGTATATTGC CCAACTCTAT GTTCTTTGA TTCTAACACA ATTAATTAAG TGACATGATT 720
 TTACTAATG TATTACTGAG ACTAGTAAAT AAATTTTAA GGCAAAATAG AGCATTG

45 Seq ID NO: 470 Protein sequence
 Protein Accession #: NP_006389.1

50 1 11 21 31 41 51
 MAPNASCLCV HVRSEWDLM TFDANPYDSV KKIKEHVRSK TKVPVQDQVL LLSKILKPR 60
 RSLSSYGIDK ERTIHLTLKV VKPSDEELPL FLVESGDRAK RHLLQVRRSS SVAQVKAMIE 120
 TKTGIIPTQ IVTNGKRLK DGRMMADYGI RKGNLLFLAS YCIGG

55 Seq ID NO: 471 DNA sequence
 Nucleic Acid Accession #: XM_094741.1
 Coding sequence: 1..948

60 1 11 21 31 41 51
 ATGAAGGCCA ACTACAGCGC AGAGGAGGCG TTCTCTCTGC TGGGTTCCTC CGACTGGCCT 60
 TCCCTGCAGC CGGTCTCTCT CGCCCTTGTG CTCTCTGCTC AACTCTGAC CTTGACGGCC 120
 AACTCGGCGC TGGTCTCTCT GGCCTGTGCG GACCGCGGCC TGACACGCGC CATGTACTAC 180
 TTCTCTCTGC ACTTGGCCCT GTTAGAGCGG GGTCTCACTA CTAGCGTGGT GCGCGCGCTG 240
 CTGGCCCAAC TGCGCGGACC AGCGCTCTGG CTGCGCGGCA GCCACTGAC GGCCTGAGCT 300
 TGCGCATGCG TGACTCTGGG TTGGGCGGAA TGGTCTCTCT TGGCGGTGAT GGCTCTGGAC 360
 CGCGCGGCGG CAGTGTGCGG CCGGCTGCGC TATGCGGGGC TGGTCTCTCT GCGCTATGTT 420
 CGCAAGCTGG CAGCGCGCTC CTGGCTAAGC GGCCTCACCA ACTGGGTGCG GCAAAAGCGG 480
 CTCTGGCTG AGCGCGCGCT GTGCGCGGCC CGCTCTCTGG AOCATCTCT CTTGAGCTG 540
 CGCGCGTTC TCAAGCTGGC CTGCGGAGGC GACGAGAGCA CTACCGAGAA CCAGATGTTT 600
 GCGCGCGCGC TGGTCTCTCT GCTGCTGCGG TTTGCGCTCA TCTGGGCTC CTACGGTGGC 660
 GTGGCGCGAG CTGCTCTGTT CATGCGGTTT AGCGGAGGCC GGAGGAGGCC GGTGGGACG 720
 TGTGGGTCCC AACTGACAGC CGTCTGCGCT TTCTACGGCT CGGCTATCTA CACTACCTG 780
 CAGCGCGCGC AGCGCTACAA CAGGCAAGG GCGAAGTTCG TATCGCTCTT CTACACCGTG 840
 GTCAACCTG CTCTCAACCC GCTCATCTAC ACCCTCAGGA ATAAGAAAGT GAAGGGGGCA 900
 GCGAGGAGGC TGCTGCGGAG TCTGGGAGA GCGCAGGCTG GGCAGTGA

80 Seq ID NO: 472 Protein sequence
 Protein Accession #: XP_094741.1

1 11 21 31 41 51
 MKANYSABER FLLLGFSDFP SLQPVLFALV LLCYLLTGTG NSALVLLAVR DPRLETPMY 60

FLCHLALVDA GPTTSVVPPL LANLRGPALW LPRSECTAQL CASLALGSAB CVLLAVMALD 120
 RAAAVCRPLR YAGLVSPRLC RTLASASWLS GLTNSVAQTA LLAERPLCAP RLLDEFICEL 180
 PALLKLACGG DGDITENQMF AARVVILLLP FAVILASYGA VARAVCCMRP SGGRRRAVGT 240
 CGSHLTAVCL FYGSAIYTYL QPAQRYNQAR GKFVSLFYT VTFALNPLIY TLRNKKVKG 300
 ARRLRSLSGR GQAGQ

Seq ID NO: 473 DNA sequence
 Nucleic Acid Accession #: NM_001062.1
 Coding sequence: 76..1380

1 11 21 31 41 51
 GCTCTCATT CCTCTGCCCC ATCACTTAAT AATAGCCAG CCAATTCATC AACATTCTGG 60
 TACACTGTTG GAGAGATGAG ACAGTCACAC CAGCTGCCCC TAGTGGGGCT CTFACITGTT 120
 TCITTTATTC CAAGCCCACT ATGCGAGATT TGTGAGGTAA GTGAAGAAA CTACATCCGC 180
 CTAAGAACCTC TGTGATATAC AATGATCCAG TCAAACTATA ACAGGGGAAC CAGCGCTGTC 240
 AATGTTGTTG TGTCCCTCAA ACTTGTGGGA ATCCAGATCC AAACCTGAT GCAGAAAGATG 300
 ATCCACAAA TCAATACAA TGTGAAAAGC AGATTGTGAG ATGTAAGCTC GGGAGAGCTT 360
 GCCTTGATTA TACTGGCTTT GGGAGTATGT CGTAACGCTG AGGAAAACCT AATATATGAT 420
 TACCACCTGA CTGACAGCT AGAAAATAAA TTCCAAGCAG AATTTGAAAA TATGGAGCA 480
 CACATGCGCA CTCCCTGAC TAACTACTAC CAGCTCAGCC TGGACGTTT GGCCTTGTGT 540
 CTGTTCAATG GGAACCTGAC AACCGCCGAA GTTGTCAACC ACTTCACTCC TGAAAATAAA 600
 AACTATTATT TTGTAGCCA GTTCTCAGTA GATACTGGTG CAATGGCTGT CTTGGCTCTG 660
 ACCTGTGTGA AGAAGAGCTC AATAAATGGG CAGATCAAAG CAGATGAAGG CAGTTTAAAG 720
 AACATCAGTA TTTATACAAA GTCACTGGTA GAAAGATTG TGTCTGAGAA AAAAGAAAT 780
 GGTCTCATTT GAAACACATT TAGCACAGGA GAAGCCATGC AGGCCCTCTT TGTATCATCA 840
 GACTATTATA ATGAAATGA CTGGAATTGC CAACAACTC TGAATACAGT GCTCAGGAA 900
 ATTTCTCAGG GAGCATTGAG TAATCCAAAC GCTGCAGCCC AGGTCTTACC TGCCCTGATG 960
 GGAAGAGCTT TCTTGATAT TAACAAAGAC TCTTCTTGGC TCTCTGCTTC AGGTAACCTC 1020
 AACATCTCCG CTGATGAGCC TATACTGTG ACACCTCCG ACACACAATC ATATATCTCC 1080
 GTCAATTAAT CTGTGAGAAAT CAATGAAACA TATTTACCA ATGTCACTGT GCTAAATGGT 1140
 TCTGTCTTCC TCACTGTGAT GGAGAAAGCC CAGAAAATGA ATGATACTAT ATTGGTTTC 1200
 ACAATGGAGG AGCGCTCATG GGGGCCCTAT ATCACTGTA TTCAGGGCCT ATGTGCCAAC 1260
 AATAATGACA GAACCTACTG GGAACCTCTG AGTGGAGGCG AACCACTGAG CCAAGGAGCT 1320
 GTTACTTACG TTGTCCGCAA TGGAGAAAC TTGGAGGTTT GCTGAGCAA ATACTAATAA 1380
 GCCCAAACTT TCCTCAGCTG CATAAAATCC ATTTGCAGTG GAGTTCCATG TTTATGTCC 1440
 TTATGCCCTT TCTTCAATT ATCCAGTAC GAGCAGGAGA GTTAATAACC TCCCTTCTC 1500
 TCTCTACATG TTCATAAAA GTTGTGAAA GATTAAC

Seq ID NO: 474 Protein sequence
 Protein Accession #: NP_001053.1

1 11 21 31 41 51
 MRQSHQLPLV GLLLPSPFIP QLCBICEVSE ENYIRLKPIL NTMIQSNYNR GTSAVNVVLS 60
 LKLVGIQIQT LMQKMIQI KYNKSRISDV SSGELALIL ALGVCRNAEE NLIVDYHETD 120
 KLENKQAEI ENMEAHNGTP LNYIYQLSLD VLALCLFNGN YSTASVNHFP TPENKNIYFG 180
 SQFSVDTGAM AVLALTCVKK SLINGQIKAD RSELKNIYIY TKSLSVERILS EKKENGLIGN 240
 TFSTGEAMDA LFVSSDYNE NDNHCQQITLN TVLTIISQGA FSNPNAARQV LPALMGIKFL 300
 DINKDSGCVS ASGNENISAD EPTVTPPDS QSYISVNYSV RINETYFTNV TVLNGSVFLE 360
 VMEKAQKXND TIFGPTMEER SWGPIYTCIQ GLCANNNDRT YWELLSGGEP LSQAGSYVV 420
 RNGENLEVRW SKY

Seq ID NO: 475 DNA sequence
 Nucleic Acid Accession #: NM_004852.1
 Coding sequence: 89..1546

1 11 21 31 41 51
 GCCCCCGCCC GCCCCGGGCT CTGATGGACT GAATGAAGGC TGCCCTACACC GGCATCGAT 60
 GCCTCACCAA AGACCTAGAA CGTGCGCCAT GAACCCGAG CTGACAAATGG AAGTCTGGG 120
 CACTTTGCAC GCGCGCGCGG GCGCGCGCAG TGGCGCGGCG GCGCGCGGGG GCGCGCGGGG 180
 CGGCGCGCGG GCGCGCGGCC ATGAGCAGGA GTGCTGGGCC AGCCCCAGCC CCCACCAAGC 240
 GCGCGCGGCG CCGCGTGGCT CGCTGCGGGG CCTCCGCGG CCGCAACCG CGCACCAAGG 300
 GCTGGGCAGG GCGGAGCGCG CGGCGCGGCG GCGGTCGCGC TCGGCGCATGG TCACCAGCAT 360
 GGCCTCGATC CTGGAAGCGG GCGACTACCG GCGCGAGCTC TCCATCCGCG TGCACCAAGC 420
 CATGAGCATG TCCCTGCGACT GGTCTCGGCC TGGCATGGGC ATGAGCAACA CCTACACAC 480
 GCTGACACCG CTCCAGCGCG TGCCACCCAT CTCCACCGTG TCTGACAGT TCCACCAACC 540
 TCACCCGAC CACCATCCGC ACCACACCA CACACACCA CACCAAGCGG TGTCCGCA 600
 CGTCAGCGCG AGCTTCACCC TCATGCGCGA CGAGCGCGG CTCCCGGCA TGAACAACCT 660
 CTACAGTCCC TACAAGGAGA TGCCCGGCAT GAGCCAGAGC CTGTCCCGCG TGGCGGCCAC 720
 GCGCTGGCG ACAGCGCTAG GCGGCTTCCA CAAGCGCGAG CAGAGTCTGC CCACTAAGG 780
 TCGCGCGGGC CAGACAAA TGTCTAGCC CAALCTCGAC GCGCACCACT CTGCCATGCT 840
 GACCGCGGCT GAGCAACACC TGTCCCGCGG CCTGGGCACT CACCTTGGG CCATGATGTC 900
 GCACCTGAAC GCGCTGCACC ACCCGGGCCA CACTCAGTCT CAGGGCGCGG TGTGGCAC 960
 CAGTGGCGAG CGGCCACCTT GGTCTTATC GGGCTGCGAG GTGGCCACGT CGGGCCAGCT 1020
 GGAAGAAATC AACACAAAG AGGTGGCCCA GCGCATCACT GCGGAGCTGA AGCGCTACAG 1080
 TATCCCGCAG GCGATCTTTG GCGAGAGGCT GCTGTGCGG TCTCAGGGA CTCTCTCGA 1140
 CCTGCTCGG AATCCAAAC CGTGGAGTAA ACTCAATCT GCGAGGAGA CCTTCCGAG 1200
 GATGTGAAG TGGCTTCAGG AGCCGAGTTC CCAGCGCATG TCGGCTTAC GCCTGGCAGC 1260
 GTGCAAGCGC AAGAGCAAG AACCAACAA AGACAGGAGC AATTCOCAGA AGAAGTCCG 1320
 CCTGCTGCT ACTGAGCTCC AACGCCAAG ACTCTTGGC ATCTTCAAGG AGAACAAAG 1380
 CCGGTCAAG GAGATGCAGA TCACCATTC CCAGCAGCTG GGCCTGAGC TCACAAACGT 1440
 CAGCAACTTC TTCATGAAG CCGCGCGCG CAGCCTGGAG AAGTGCAGC AGATCTGAG 1500

CACAGGGGGC TCCTCGTCCA CCTCCAGCAC GTGTACCAAA GCATGATGGA AGGACTCTCA 1560
 CTTGGGCACA AGTCACCTCC AATGAGGAC AACAGATACC AAAAGAAAAC AAAGGAAAAA 1620
 GACACCGGAT TCCTAGCTGG GGCCCTTCAC TGGTG

5 Seq ID NO: 476 Protein sequence
 Protein Accession #: NP_004843.1

1 11 21 31 41 51
 10 MNPELTMESL GTLHGARGGG SGGGGGGGGG GGGGGPGHEQ ELLASPSPHH ARRGPRGSLR 60
 GPPPPPTAHQ ELGTAAAAAA AASRSAMVTS MASILDGGDY RPELSIFLHH AMSMCDSSP 120
 PGMGMSNTYT TLTPLPQLPP ISTVSDKPHK PHPHHHPHHH HHHHHQLSLG NVSGSFTLMR 180
 DERGLPAMNN LYSFYKEMPG MSQSLSPALP TPLGNGLSGL HNAQQSLFNY GPFPHDKMLR 240
 PNFDAAHTAM LTRGEHLSR GLGTPPAAMM SHINGLHRPG HTQSBGEVLA PSRERPPSSS 300
 15 SSSQVATSCQ LEEINTKEVA QRITAEIKRY SIPQAIFAQR VLCSRSQGLS DLLRNPKFWS 360
 KLKSGRETFR RMNKLQEPZ FQMSALRLA ACKRKEQEPN KDRNNSQKKS RLVPFDLQRR 420
 TLFAIFKENK RPSKEMQITI SSQLGLELIT VENNFMNARR RSLKRWQDDL STGGSSSTSS 480
 TCTKA

20 Seq ID NO: 477 DNA sequence
 Nucleic Acid Accession #: NM_013271.1
 Coding sequence: 27..809

1 11 21 31 41 51
 25 TCOGAGCCA GGCTCGCTGG GGCAGCATGG CGGGGTGCGC GCTGCTCTGG GGGCCGCGG 60
 CCGGGGGCGT CCGGCTTTTG GTGCTGCTGC TGCTCGGCCT GTTTCGGCCG CCCCCCGCG 120
 TCTGCGCGCG GCGGTAAAG GAACCCGCGG GCTTAAGCGC AGCTCTCTCG CCTTGGCTG 180
 AGACTGGGCG TCCGCGCCGC TTCCGCGCGT CAGTGCCTCG AGGTGAGGCG CGCGGGGCG 240
 30 TGCAAGAGCT GCGCGGGCGG CTGGCGCATC TGCTGGAGGC CGAACGTCAG GAGCGGGCGC 300
 GGGCCGAGGC GCAAGAGGCT GAGGATCAGC AGCGCGCGGT CCTGGGCGAG CTGCTGCGCG 360
 TCTGGGGCGC CCCCCGCAAC TCTGATCCGG CTCTGGGCGT GGAACGACAC CCGGACGCGC 420
 CTGACGCGCA GCTGCTGCGC GCTCTGCTCC GCGCCGCGCT TGACCTGCGC GCGCTAGCAG 480
 35 CCGAGCTTGT CCGCGCGCGC GTCCCGCGCG CGGCGCTCGC ACCCGGCGCC CGGCTCTAGC 540
 ACGACGGCCC CCGGGGCGCG GATGCTGAGG AGGCAGGCGA CGAGACACCC GAGCTGGACC 600
 CCGAGCTGTT GAGTACTTGG CTGGGACCGA TTCCTGGGGG AAGCGCGGAC TCCGAGGGGG 660
 TGGCAGCCGC CCGCCGCTTC CCGCGTGGCG CCGACACGGA TGTGGGCTCT GAGCTGCCCC 720
 CTGAGGGCGT GCTGGGGGCG CTGCTGCGTG TGAACGCGCT AGAGACCCCG GCGCCCGCAG 780
 TGCTCTGACG CCGGCTCTTG CCACCTGAG CACTGCGCGG ATCCCGTGCA CCTTGGGACC 840
 40 CAGAAGTGCC CCGCCATTCG CGCCACGAG ACTTCTCCCC GCCAGCACGT CCAGAGCAAC 900
 TTACCCGCGC CAGCCAGGCC TCTACCCGA GGATCCCTAC CCGCTGGGCC ACAATAACAT 960
 GATCTGAGC

45 Seq ID NO: 478 Protein sequence
 Protein Accession #: NP_037403.1

1 11 21 31 41 51
 50 MAGSPLLWGP RAGVGILLVL ILLGLFRPPP ALCARPVKEP RGLSAASPPL AETGAPRRFR 60
 REVERGEAAG AVQELARALA HLLAEERQER ARABAQEAED QQARVLAQL RVWGAPRNSD 120
 PALGLDDDDP APAQLARAL LRARLDPAAL AAQLVPAVPV AAALRPFPFV YDDGPAGEDA 180
 REAGDETPIV PELLRLYLLG RILAGSADSE GVAAPRELRR AADHDVBSL PPEGVLGALL 240
 RVKRLSTPAP QVPARRLLFP

55 Seq ID NO: 479 DNA sequence
 Nucleic Acid Accession #: NM_002214
 Coding sequence: 681..2990

1 11 21 31 41 51
 60 CCCAGAGCGG CTTCCCCCTG TTGCTGGCAT CCGAGCTTC CTCCCTTGCC AGCCAGSAG 60
 CTGCCGACTT GTCCTTGCCC GCTGCTCCGC AGACGGGGCT GCAAAGCTGC AACTAATGGT 120
 GTTGGGCTCC CTGCCCACTT GTGGAAGCAA CTGGCTGAT TGATGCGCCA CAGACTTTT 180
 TCCCTCGGAC CTGCGCGGCG TACCTCCCA CAGATCCAGC ATCACCCTAT GAATGTACAT 240
 65 TAGGGTGCGT TCCCCCCCAG CTTCGGGCTT TGTTTGGGTT TGATGTGTGT TGGCTCTTCG 300
 CTAAGCTGAT TTATGCAGCA GAAGCCCCAC CGGCTGGAGA GAAACAAAG CTCTTTTCTT 360
 TGTCCCGGAG CAGGCTGCGG AGCCCTTGCA GAGCCCTCTC TCCAGTCCGC GCCGGGCGCT 420
 TGGCGGTGCA AGGAGGTGCT TCTGCGGAG ACCGCGGAG CCGCGGTGCC GAGCGGGGAG 480
 70 GCGCGTAGGG GCCCTGAGAT GCGGAGCGGT GCGCGGCGCC GCTTACCTGC ACCGCTTGCT 540
 CGAGCGCGCG GGGTCCGCTT GCTAGGCTTG CGGAAAAGT CCTAGCGACA CTGCGCCGCG 600
 GGCCCGGAGG TCGCCCGGGA GGCCGAGCCC GGTTCGGAAG GGCAGCCAGG CGCGGGGCGC 660
 GGGGCGGGCT GTTTTGCAAT ATGTGCGGCT CCGCCCTGGC TTTTTTACC GCTGCAATTG 720
 TCTGCGTCA AAACGACCGG CGAGGTCCCG CCTCGTCTCT CTGGGCGAGC TGGGTGTTTT 780
 75 CACTGTCTCT TGGACTGGGC CAAGGTGAAG ACAATAGATG TGCATCTTCA AATGACGATC 840
 CCTGTGCCAG GTGCTCTGCG CTGGGTCCAG AATGTGAGT GGTGTTCCTA GAGGATTCA 900
 TTTTCAAGTG ATCAAGAAGT GAACGTTGTG ATATTGTTT CAATTTAATA AGCAAAAGGT 960
 GCTCAGTTGA TTCAATAGAA TACCCATCTG TGCAATGTTT AATACCCACT GAAATGAA 1020
 TTAATACCCA GGTGACACCA GGAGAAGTGT CTATCCAGCT GGTTCAGGA GCGGAAGCTA 1080
 80 ATTTTATGCT GAAAGTTGAT CCTCGAAGA AATATCTGT GATCTTTTAT TCTCTGTTG 1140
 ATGTCTCAGC ATCAATGCAC AATAATATAG AAAAATATAA TTCGTTTGA AACGATTAT 1200
 CTAGAAAAAT GGCATTTTTC TCCCGTGACT TTGCTCTTGG ATTTGGCTCA TACGTTGATA 1260
 AAACGCTTTC ACCATACATT AGCATCCACC CGGAAAGGAT TCATAATCAA TGCAGTGACT 1320
 ACATTTTAGA CTGCATGCTT CCCCATGGAT ACATCCATGT GCTGTCTTGT ACAGAGACAC 1380
 TCACTGAGTT TGAGAAAGCA GTTCATAGAC AGAAGATCTC TGGAAACATA GATACACCAG 1440

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AAGGAGGTTT TGACGCCATG CTTCAGGCAG CTGTCTGTGA AAGTCATATC GGATGGCGAA 1500
AAGAGGCTAA AAGATGCTCG CCGGTGATGA CAGATCAGAC GTCTCATCTC GCTCTTGATA 1560
GCAATTTGGC AGGCATAGTG GTGCCCAATG ACQGAACCTG TCATCTGAAA AACACGCTCT 1620
ACGTCAAATC GACCAACCATG GAACACCCCT CACTAGGCCA ACTTTCAGAG AAATTAATAG 1680
ACAAACAAT TAATGTCAAT TTTCAGTTC AAGGAAAACA ATTTCAATGG TATAAGGATC 1740
TTCTACCCCT CTTCGCCAGC ACCAATGCTG GTGAAATAGA ATCAAAGGCT GCAACCTCA 1800
ATAATTTGGT AGTGGAGGCC TATCAGAAGC TCATTTTACA AGTGAAAGTT CAGGTGGAAA 1860
ACCGGTACA AGGCATCTAT TTTAACATTA CCGCCATCTG TCCAGATGGG TCCAGAAAAGC 1920
CAGGCATGGA AGGATGCAGA AACGTGACGA GCAATGATGA AGTTCCTTTC AATGTAACAG 1980
TTACAATGAA AAAATGTGAT GTCAACAGAG GAAAAAATA TGCAATAATC AAACCTATTG 2040
GTTTTATGA AACCCGTAAT ATCTATATAC ACAGAACTG CAGCTGTCTG TGTGAGGACA 2100
ACAGAGGACC TAAAGGAAG TGTGTAGATG AAACCTTCT AGATTCCAAG TGTTCCTAGT 2160
GTGATGAGAA TAAATGTCTT TTTGATGAG ATCAGTTTTC TTCTGAGAGT TGCAAGTCTC 2220
ACAGAGATCA GCCTGTTTGC AGTGGTGGAG GAGTTTGTGT TTGTGGGAAA TGTTCATGTC 2280
ACAAAATATA GCTTGGAAAA GTGTATGGAA AATACTGTGA AAAGGATGAC TTTTCTTGTG 2340
CATATCAGCA TGGAAATCTG TGTGCTGGGC ATGGAGAGTG TGAAGCAGGC AGATGCCAAT 2400
GCTTCAGTGG CTGGGAAGGT GATCGATGCC AGTGCCCTTC AGCAGCAGCC CAGCACTGTG 2460
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Protein Accession #: NP_002205

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Coding sequence: 1..2574

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 Protein Accession #: NP_003309.1

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 Protein Accession #: NP_003658.1

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Seq ID NO: 486 Protein sequence
 Protein Accession #: NP_005747.1

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Seq ID NO: 487 DNA sequence
 Nucleic Acid Accession #: Eos sequence
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Seq ID NO: 488 Protein sequence
 Protein Accession #: Eos sequence

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 65 GATACTGATA ATTCCAGTIT GTCACTACCA CCGTAGGTTG AAACAACAG CCTCAATGAT 180
 GTTACTTTAA GCTTACTTCC TTCAAACGAA ACAGGCGTCA AACCCAGAG AAATATCTGC 240
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 70 ACTTACTTTA TAATGTGTGC TACAGCAGAG GCCCAAGCA CATTAAATG TACATTACA 480
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Seq ID NO: 490 Protein sequence
 Protein Accession #: Eos sequence

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IRPMRECCCS VRIPCPSPSE ELEKLQCDLQ DPTVLADHP RGPFFSSQSS IPVVPRATVL 240
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Seq ID NO: 491 DNA sequence
 Nucleic Acid Accession #: Eos sequence
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| 5 | CAAAATGATGG | CTCTGACGTT | CATTACATAT | ATTGGTTGTG | GGCTTTCATC | AATTTTICTG | 1920 |
| | TCAGTGACTC | TTGTAACTTA | CATAGCTTTT | GAAAAGATCC | GGAGGGATTA | CCCTTCCAAA | 1980 |
| | ATCCCTCATCC | AGCTGTGTGC | TGCTCTGCTT | CTGCTGAACC | TGGTCTTCCT | CCTGGGACTCG | 2040 |
| | TGGATTGCTC | TGTATAAGAT | GCAAGGCCTC | TGCACTCTCAG | TGGCTGTATT | TCTTCATTAT | 2100 |
| | TTTCTCTTGG | TCTCATTTAC | ATGGATGGGC | CTAGAAGCAT | TCCATATGTA | CCTGGCCCTT | 2160 |
| | GTCAAAGTAT | TTAATACTTA | CATCCGAAAA | TACATCCCTA | AATTCIGCAT | TGTCGGTTGG | 2220 |
| | GGGGTACCAG | CTGTGGTTGT | GACCATCATC | CTGACTATAT | CCCCAGATAA | CTATGGGCTT | 2280 |
| | GGATCCTATG | GGAAATTCOC | CAATGGTICA | COGGATGACT | TCTGCTGGAT | CAACAACAAT | 2340 |
| 10 | GCAGTATTCT | ACATTACGGT | GGTGGGATAT | TTCTGTGTGA | TATTTTGTCT | GAACGTCAGC | 2400 |
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| | ATAACTTGGG | GCCTTGCTTT | CTTTGCCCTG | GGACCACTTA | ACGTGACCTT | CATGTATCTG | 2580 |
| | TTTGCCATCT | TTAATACCTT | ACAAGGATTT | TTTATATTCA | TCTTTTACTG | TGTGGCCAAA | 2640 |
| 15 | GAAAATGTCA | GGAAAGCAATG | GAGGCGGTAT | CTTTGTGTG | GAAAGTTACG | GCTGGCTGAA | 2700 |
| | AATTCGAGCT | GGAGTAAATC | TGCTACTAAT | GCTTTAAAGA | AGCAGACTGT | AAACCAAGGA | 2760 |
| | GTGTCCAGCT | CTTCAAATTC | CTTACAGTCA | AGCAGTAACT | CCACTAACTC | CACCACACTG | 2820 |
| | CTAGTGAATA | AGTATTCCTC | AGTACACGCA | AGCGGGAATG | GAAATGCTTC | TACAGAGAGG | 2880 |
| | AATGGGGTCT | CTTTAGTGT | TCAGAAATGA | GATGTGTGCC | TTCAAGATT | CCTGGGAAAA | 2940 |
| 20 | CAGCACATGT | TTAACGAGAA | GGAAAGATTCC | TGCAATGGGA | AAGGCCGTAT | GGCTCTCAGA | 3000 |
| | AGGACTTCAA | AGCGGGGAAG | CTTACACTTT | ATTGAGCAAA | TGTGA | | |

Seq ID NO: 492 Protein sequence
Protein Accession #: Bos sequence

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| | GEIMFQDKK | STVPQNHIT | NGTLGVLSL | SELKRSBLNK | TLQTLSETYF | IMCATAEAQS | 180 |
| 30 | TLNCTPTIKL | NMTWACAAI | AALERVKIRP | MEHCCCSVRI | PCPSSPEELG | KLQCDLQDFI | 240 |
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| | PQPSAPIASS | PAIDMPPQSE | TISSFMPQTH | VSGTTPPVKA | SPSSPTVSAP | ANVNTTSAPP | 360 |
| | VQTDIVNTSS | ISDLENQVLQ | MEKALSLSGL | EPNLAGEMIN | QVSRLLHSPF | DMLAPLAQL | 420 |
| | LKVVDDIGLK | LMFBNITISL | TSPSLALAVI | RVNASSFNMT | TFVAQDPANL | QVSLSTQAE | 480 |
| 35 | NSIGTITLPS | SLMNNLPAHD | MELASRVQFM | FFETPALEQD | PSENLSLIS | VYISSSVANL | 540 |
| | TVRNLTRNVT | VTLKHNFSQ | DELIVRCVFV | DLGRNGGROG | WSDNGCSVKD | RRLNBTICTC | 600 |
| | SHLTSFGLLL | DLSESTVLPA | QMMALTFITY | IGCGLSSIFL | SVTLVITYAF | EKIRRDYPSK | 660 |
| | ILIQLCALLL | LLNLVPLDLS | WIALYKMQGL | CISVAVFLHY | FLLVSTFWMG | LEAFHMYLAL | 720 |
| | VKVENTYIRK | YLKFCYIVGW | GVPVAVVFTI | LTISPENYGL | GSYGRFPNGS | PDDFCWINNN | 780 |
| 40 | AVFYITVVGY | FCVIFILNVG | MPIVVLVQLC | RIKKRKRLGA | QRKTSIQDLR | SIAGLTFLLG | 840 |
| | ITWGFAPFAW | GFNVNFMYL | PAIFNTLQGF | FIFIFICYAK | ENVRKQWRRY | LCCGKLRLAE | 900 |
| | NSDWSKATIN | GLKKQTVNQG | VSSSSNSLQS | SENSTNSTTL | LVNNDCSVHA | SGNGMASTER | 960 |
| | NGVSFSVQNG | DVCLHDFTKG | QHPFNEKKES | CNGKGRMALR | RTSKRGSLHF | IQQM | |

Seq ID NO: 493 DNA sequence
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| | CGAGTGGAGC | GGAGGACCCG | AGCGGCTGAG | GAGAGAGGAG | CGCGCGGCTT | AGCTGCTACG | 180 |
| | GGGTCCGGCC | GGCGCCCTCC | CGAGGGGGGC | TCAGGAGGAG | GAAGGAGGAC | CGGTGCGAGA | 240 |
| 55 | ATGCCCTGTC | CCTGGAGCCT | TGCGCTCCCG | CTGCTGCTCT | CCTGGGTGGC | AGGTGGTTTC | 300 |
| | GGGAACGCGG | CCAGTGCAGG | GCATCACCGG | TTGTTAGCAT | CGGCACGTCA | GCGTGGGGTC | 360 |
| | TGTCCTATAG | GACTAAACT | GGCTGTCTGC | TACGGCTGGA | GAAGAAACAG | CAAGGGAGTC | 420 |
| | TGTGAAGCTA | CATCGCAACC | TGGATGTAA | TTTGTGAGT | GCCTGGGACC | AAACAAATGC | 480 |
| | AGATGCTTTC | CAGGATACAC | CGGGAACACC | TGCAGTCAAG | ATGTGAATGA | GTGTGGAATG | 540 |
| 60 | AAACCCCGGC | CATGCCAACA | CAGATGTGTG | AATACACACG | GAAGCTACAA | GTGCTTTTGC | 600 |
| | CTCAGTGGCC | ACATGCTCAT | GCCAGATGCT | ACGTGTGTGA | ACTCTAGGAC | ATGTGCCATG | 660 |
| | ATAAACTGTC | AGTACAGCTG | TGAAGACACA | GAAGAGGGGC | CACAGTGCCT | GTGTCCATCC | 720 |
| | TCAGGACTCC | GCCTGGCCCC | AAATGGAAGA | GACTGTCTAG | ATATGTATGA | ATGTGCCCTCT | 780 |
| | GGTAAAGTCA | TCTGTCCCTA | CAATCGAAGA | TGTGTGAACA | CATTGTGAAG | CTACTACTGC | 840 |
| 65 | AAATGTACAA | TTGTTTTCGA | ACTGCAATAT | ATCAGTGGAC | GATATGACTG | TATAGATATA | 900 |
| | AATGAATGTA | CTATGGATAG | CCATACGTGC | AGCCACCATG | CCAATFGCTT | CAATACCCAA | 960 |
| | GGGTCTCTCA | AGTGTAAATG | CAAGCAGGGA | TATAAAGGCA | ATGGACTTCG | GTGTTCTGCT | 1020 |
| | ATCCCTGAAA | ATTCTGTGAA | GGAACTCCTC | AGAGCACCTG | GTACCATCAA | AGACAGAAATC | 1080 |
| 70 | AAGAAAGTTG | TTGCTCACAA | AAACAGCATG | AAAAAGAAGG | CAAAAATTAA | AAATGTTACC | 1140 |
| | CCAGAACCCA | CCAGGACTCC | TACCCCTAAG | GTGAACCTTG | AGCCCTTCAA | CTATGAAGAG | 1200 |
| | ATAGTTTCCA | GAGCGGGGAA | CTCTCATGGA | GTTAAAAAAG | GGAAATGAAGA | GAAATGAAGA | 1260 |
| | GAGGGGCTTG | AGGATGAGAA | AAGAGAAGAG | AAGGCCCTGA | AGAATGACAT | AGAGGAGCGA | 1320 |
| | AGCCTCGGAG | GAGATGTGTT | TTTCCCTAAG | GTGAATGAAG | CAGGTGAATT | CGGCTGATT | 1380 |
| | CTGGTCCAAA | GGAAGCGCT | AACITCCAAA | CTGGAACATA | AAGATTAAAA | TATCTCGGTT | 1440 |
| 75 | GACTGCAGCT | TCAATCATGG | GATCTGTGAC | TGGAAACAGG | ATAGAGAAGA | TGATTTTGAC | 1500 |
| | TGGAATCCTG | CTGATCGAGA | TAATGCTATT | GGCTTCTATA | TGGCAGTTCC | GGCCTTGGCA | 1560 |
| | GGTCACAAGA | AAGACATTGG | CCGATTGAAA | CTTCTCCTAC | CTGACCTGCA | ACCCCAAGGC | 1620 |
| | AACCTCTGTT | TGCTCTTTGA | TTACCGGCTG | GGCGGAGACA | AAGTCGGGAA | ACTTCGAGTG | 1680 |
| 80 | TTTGTGAAAA | ACAGTAAACA | TGCCCTGGCA | TGGGAGAGA | CCACAGTGA | GGATGAAAAG | 1740 |
| | TGGAGACAG | GGAAATTTCA | GTTGTATCAA | GGAACTGATG | CTACCAAAAG | CATCATTTT | 1800 |
| | GAAGCAGAAC | GTGSCAAGGG | CAAAACCGGC | GAAATCCHAG | TGGATGGCGT | CTTGCTTGTT | 1860 |
| | TCAGGCTTAT | GTCCABATAG | CCTTTTATCT | GTGGATGACT | GAATGTTACT | ATCTTTATAT | 1920 |
| | TTGACTTTGT | ATGTCAGTTC | CCTGGTTTTT | TTGATATTGC | ATCATAGGAC | CTCTGGCATT | 1980 |
| | TTAGAAATTAC | TAGCTGAAAA | ATTGTAAATG | ACCAACAGAA | ATATTATTGT | AAGATGCCCT | 2040 |

TCTTGTATAA GATATGCCAA TATTTGCTTT AAATATCATA TCACTGTATC TTCTCAGTCA 2100
 TTCTGAATC TTTCACATC ATATTATAAA ATATGGAAAT GTCAGTTTAT CTCCTCTCCT 2160
 CAGTATATCT GATTTGTATA AGTAAGTTGA TGAGCTTCTC TCTACACAT TTCTAGAAAA 2220
 TAGAAAAAAA AGCAGAGAA AATGTTTAACT TGTITGACTC TTATGATACT TCTTGGAAAC 2280
 5 TATGACATCA AAGATAGACT TTTCCTTAAG TGGCTTAGCT GGGTCTTICA TAGCCAAACT 2340
 TGTATATTTA AATTCTTTGT AATAATAATA TCCAAATCAT CAAAAAATAA AAAAAAAA

Seq ID NO: 494 Protein sequence
 Protein Accession #: NP_056322

1 11 21 31 41 51
 15 MLEFWSLALP LLLSWVAGGF GNAASARHNG LLSASARQPGV CHYGTKLACC YGWRNSKGV 60
 CEATCEPGCK FGEVGVGNKC RCFPGYTGKI CSQDVNECGM KPRPCQHRV NTHGSYKFC 120
 LSGHMLMPPA TCNVSRTCAM INCQYSCEDT BEGFPQCLCP SGLRLAFNGR DCLDIDECAS 180
 GRVICPNRR CVNTPGSYTC KCHIGFELQY ISGRYDCIDI NECIMDSBTC SHHANCFTNQ 240
 GSPFKCKCKG YKGNGLRCSA IPENSVKEVL RAPGTIKDRI KKLLAKNSM KCKAKIKNVT 300
 20 PEPRTPTPK VMLQPFNVYE IVSRGCSHNG GKKNREIMK EGLEDEKREE KALQMDIEER 360
 SLRGDVFFPK VNEAGEFGLI LVQRKALTSK LEHKDLNISV DCSFNHICD WKQDREDDFD 420
 WNPADRDNAI GFYMAVPALA GHRKIDIGRLK LLLPDLQPOS NPLCLFDYEL AGDKVKGLEV 480
 FVINSNNALA WEKTTSEDEK WKTGKIQLYQ GTDATKSIIF EAERGKGTG EIAVDGVLLV 540
 SGLCPDILLS VDD

Seq ID NO: 495 DNA sequence
 Nucleic Acid Accession #: NM_003506.1
 Coding sequence: 259..2379

1 11 21 31 41 51
 30 GCAGCTCCAG TCCCGAAGC AACCCCGAG CCGTCTCAGG TCCCTGGGGG GAACGGTGGG 60
 TTAGACGGGG ACGGGAAGGG ACAGCGGCCT TCGACCGCCC CCCBAGTAAT TGACCCAGGA 120
 CTCATTTTCA GGAAGAGCTC AAAATGAGTA AATAGTGAAT ATGAGGAAT TGAACATTTT 180
 35 ATCTTTGGAT GGGGATCTTC TGAGGATGCA AAGAGTGATT CATCCAGGCC ATGTGGTAAA 240
 ATCAGGAATT TGAGAAAAAT GGAGATGTTT ACATTTTGTG TGACGTGTAT TTTTCTACCC 300
 CTCTTAAGAG GGCACAGTCT CTTCACCTGT GAACCAATTA CTGTTCCAG ATGTATGAAA 360
 ATGGCCTACA ACATGACGTT TTCCCTAAT CTGATGGGTC ATTATGACCA GAGTATTGCC 420
 CGCGTGGAAA TGGAGCATTT TCTTCTCTC GCAATCTGG AATGTTACCC AAACATGAAA 480
 ACTTCTCTCT GCAAGCATTT TGTACCAACC TGCATAGAAC AAATTCATGT GGTTCACCT 540
 40 TGTCTTAAAC TTGTGAGAA AGTATATTCT GATTGCAAAA AATTAATTGA CACTTTTGGG 600
 ATCCGATGGC CTGAGGAGCT TGAATGTGAC AGATTACAAT ACTGTGATGA GACTGTTCTT 660
 GTAACTTTTG ATCCACACAC AGAATTTCTT GGTCTCAGA AGAAAAAGA ACAAGTCCAA 720
 AGAGACATTG GATTTTGGTG TCCAGGCGAT CTTAAGACTT CTGGGGGACA AGGATATAG 780
 45 TTTCTGGGAA TTGACCATTT TGGGCTCTCA TGCCTCAACA TGTATTITAA AAGTGATGAG 840
 CTAGAGTTTG CAAAAAGTTT TATTGGAACA GTTTCAATAT TTTGTCTTGG TGCAACTCTG 900
 TTCACATTCCT TTACTTTTCT AATTGATGTT AGAAGATTCA GATACCCAGA GAGACCAATT 960
 ATATATTACT CTGTCTGTGA CAGCATTTGA TCTCTTATGT ACTTCATTGG ATTTTGTGCT 1020
 GGCGATAGCA CAGCTTCGAA TAAGGCGAGT GAGAGCTAG AACTTGTGTA CACTGTGTCT 1080
 CTAGGCTCTT AAAATAAGGC TTGCACTCTT TGTTCATGCT TTTTGTATT TTTCACAATG 1140
 50 GCTGGCACTG TGTGGTGGGT GATTCCTTACC ATTACTTGGT TCTTAGCTGC AGGAAGAAAA 1200
 TGGAGTTGTG AAGCCATCGA GCAAAAAGCA GTGTGGTTTC ATGCTGTGTC ATGGGGAACA 1260
 CCAGGTTTCC TGACTGTTAT GCTTCTGTCT CTGAACAAGG TTGAAGGAGA CAACATTAGT 1320
 GGAGTTTGTCT TGTGTGGCTT TTATGACCTG GATGCTTCTC GCTACTTGT ACTCTGCCA 1380
 55 CXTGTGCTTT GTGTGTTTGT TGGCTCTCTC CTTCTTTTAG CTGGCATTAT TTCTTAAAT 1440
 CATGTTCTGAC AAGTCATACA ACATGATGCG CGGAACCAAG AAAAATAAAA GAATTTATG 1500
 ATTCTGAATG GAGTCTTCAG CGGCTTGTAT CTGTGCTCAT TAGTGACACT TCTGGATGT 1560
 TACGCTCATG AGCAAGTGA CAGGATTACC TGGGAGATAA CTTGGGCTCT TGATCATTTG 1620
 CGTCATGACC ATATCCCATG TCCTTATCAG GCAAAAGCAA AAGCTTCGACC AGAATTGGCT 1680
 60 TTATTTATTA TAAATACCTT GATGACATTA ATTGTGGCA TCTCTGCTGT CTTCTGGGTT 1740
 GGAAGCAAAA AGACATGAC AGAATGGGCT GGGTTTTTAA AACGAATCG CAAGAGAGAT 1800
 CCAATCAGTG AAGTCTGAAG AGTACTACAG GAATCATGTG AGTTTTCTT AAAGCACAT 1860
 TCTAAGTTA AACACAAAAA GAAGCACTAT AAACCAAGTT CACACAAGCT GAAGGTCATT 1920
 TCCAAATCCA TGGGAACAG CACAGGAGCT ACAGCAATC ATGGCACTTC TGCAAGTACA 1980
 65 ATTACTAGCC ATGATTACCT AGGACAAGAA ACITTGACAG AAATCCAAAC CTCACCAGAA 2040
 ACATCAATGA GAGAGGTGAA AGCCGACGGA GCTAGCACCC CCAGGTTAAG AGAACAGGAC 2100
 TGTGTGAAC CTGCTCTGCG AGCAGCATCC ATCTCCAGAC TCTCTGGGGA ACAGGTGAC 2160
 GGGAGGGGCC AGGCAGGCGAG TGTATCTGAA AGTGCGCGGA GTGAAGGAAG GATTAGTCCA 2220
 AAGAGTGATA TTACTGACAC TGGCTGGGCA CAGAGCAACA ATTTGCAAGT CCCAGTTCT 2280
 70 TCAGAACCAA GCGAGCTCAA AGGTTCCACA TCTCTGCTTG TTCACCCAGT TTCAGGAGTG 2340
 AGAAAAGAGC AGGGAGGTGG TTGTCTATCA GATACTTGAA GAACATTTTC TCTCTTACT 2400
 CAGAAACAAA TTGTGTATAC ACTGGAAGTG ACCATGACAC TGTTTTGTAA GAATCACTGT 2460
 TACGTTCTTC TTGTGACTTT AAGTTGCTAT TGCCTACTGT TATACCTGGA AAAATAGAGT 2520
 TCAGAAATAA TTGACTCAT TTACACAAA GGTATATGAC AACATATAC CTGAAAACAG 2580
 75 AATGTGACAG GTTATATAA TTTTTEAAT AGTGTGGAG GACAGAGTTA GAGGAATCTT 2640
 CCTTTTCTAT TTATGAGAT TCTACTCTTG GTAAAGATAT TTTAAGATGT ACTATGCTAT 2700
 TTTACCTTTT TGATATAAAA TCAAGATATT TCTTGTCTGA AGTATTTAAA TCTTATCTT 2760
 GTATCTTTT ATACATATT GAAATATAGC TTATATGTAT TTGAATCTTT TTGAAATCCT 2820
 ATTCAAGTAT TTTTATCAT CTATTTGTAT ATTTTAGCAC TTGTGTAGCT TTTCACTGTA 2880
 80 ATTTCTAAGA AATGTGTA AATGCTTCT TTTATCTGT AAAAAGAT ATACCAAAA 2940
 GTCTTATAAT AGGAATTTAA CTTTAAAC CCACCTTATG ATACCTTACC ATCTAAAATG 3000
 TGTGATTTT ATAGTCTCTT TTTAGGAATT TCACAGATCT AATTTATGTA ACTGAAATAA 3060
 GGTGCTTACT CAAAGAGTGT CCACATTTGA TTGTATTATG CTGCTCAGTG ATCTCTGTC 3120
 ATATTTAAAA TAAATGTCTC TAAAGGGTTA GTAGACAAAA TGTAGTCTT TTGTATATA 3180
 GGCCAAGTGC AATTGACTTC CCTTTTAA TGTTCATGA CCACCATTA ATGTATTAT 3240

AACCACTTAC AGTTGCTTAT ATTTTGTGTT TTAACITTTG TTTCTTAACA TTTAGAATAT 3300
TACATTTTGT ATTATACAGT ACCTTTCTCA GACATTTTGT AG

Seq ID NO: 496 Protein sequence
Protein Accession #: NP_003497.1

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|-------------|------------|------------|-------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MEMFTFLLLTC | IFLPLLRGHS | LFTCEPITVP | RCMKMAYNMT | FFPNLMGHYD | QSIAAVEMEH | 60 |
| FLPLANLECS | PNIETFLCKA | FVPTCIEQIH | VVPPCRKLCE | KVYSDCIKLI | DTFGIRWPEE | 120 |
| LECDRLQYCD | ETVPVTFDPH | TEFLGPQKKT | EQVQRDIGFW | CPRHDKTSGG | QGYKFLGIDQ | 180 |
| CAPPCPNMYP | KSDLEFAKFS | FIGTUSIFCL | CATLFTPLTF | LIDVRRFRYP | ERPIIYYSVC | 240 |
| YSIVSLMYFI | GFLLGDSIAC | NKADEKLELG | DTVVLGSQNK | ACTVLFMLLY | FFTMASTVWW | 300 |
| VILTYITMELA | AGRKNSCEAI | BQKAVWPHAV | ANGTPGFLT | MLLALNKEVG | DNISGVCFTG | 360 |
| LYDILDASRYF | VLLPLCLCVF | VGLSLLLAGI | ISLMHVRQVI | QHDGRNQEKI | KKFMIRIGVF | 420 |
| SGLYLVPLVT | LLGCTVYEQV | NRITNEITNV | SDRCRQYHIP | CPYQAKAKAR | PELALFMICY | 480 |
| LMTLIVQISA | VFWVGSKMTC | TEWAGFFKRN | RKRDPISSESR | RVLQESCEPF | LGHNSKVXKH | 540 |
| KKHYPSSHK | LKVISKSMGT | STGATANHGT | SAVAITSHDY | LQGETLTETQ | TSPETSMREV | 600 |
| KADGASTFRL | REQDCGEPAS | PAASISRLSG | EDVDGKGQAG | SVSESARSZG | RISPKSDITD | 660 |
| TGLAQSNMLQ | VPSSSEPPSL | KGSTSLLVHP | VSGVRKEQGG | GCHSDT | | |

Seq ID NO: 497 DNA sequence
Nucleic Acid Accession #: NM_005046
Coding sequence: 16..777

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|------------|------------|------------|------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| GGATTTCGG | GCTCCATGGC | AAGATCCCTT | CTCCTGCCCC | TGCAGATCCT | ACTGCTATCC | 60 |
| TTAGCCTTGG | AAACTGACAG | AGAAGAAGCC | CAGGGTGACA | AGATTATGTA | TGGCGCCCCA | 120 |
| TGTGCAAGAG | GCTCCACACC | ATGGCAGGTG | GCCTGCTCA | GTGGCAATCA | GCTCCACTGC | 180 |
| GGAGGCGTCC | TGGTCAATGA | GCCTGCGGTG | CTCACTGCGG | CCCACTGCAG | GATGAATGAG | 240 |
| TACACCGTGC | ACCTGGGCAG | TGATACGCTG | GGCGACAGGA | GAGCTCAGAG | GATCAAGGCT | 300 |
| TGGAAGTCAT | TCCGCGACCC | CGGCTACTCC | ACACAGACCC | ATGTTAATGA | CCTCATGCTC | 360 |
| GTGAAGCTCA | ATAGCCAGGC | CAGGCTGTCA | TCCATGGTGA | AGAAAGTCAG | GCTGCCCTCC | 420 |
| CGCTGCGAAC | CCCCGGAAC | CACCTGTACT | GTCTCCGGCT | GGGCGACTAC | CACGAGCCCA | 480 |
| GATGTGACCT | TTCCTCTGTA | CCTCATGTGC | GTGGATGTCA | AGCTCATCTC | CCCCAGGAC | 540 |
| TGCACAGAGC | TTTACAAGGA | CTTACTGGA | AATTCCATGC | TGTGCGCTGG | CATCCCGGAC | 600 |
| TCCAAGAAAA | ACGCTCTGAA | TGGTACTGCA | GGGGACCGT | TGGTGTGAG | AGGTACCTCG | 660 |
| CAAGGTCTGG | TGTCCTGGGG | AACCTTCCCT | TGCGGCCAAC | CCAATGACCC | AGGAGCTTAC | 720 |
| ACTCAAGTGT | GCAAGTTCAC | CAAGTGGATA | AATGACACCA | TGAAAAAGCA | TGCTAAACGC | 780 |
| CACACTGAGT | TAATTAACCT | TGTGCTTCCA | ACAGAAATG | CACAGGAGTG | AGGACGCGGA | 840 |
| TGACCTATGA | AGTCAATTTT | GACCTTACCT | TTCCCTCAAG | ATATAATTAA | ACCTCATGCC | 900 |
| CTGTGTGATA | ACCAATCAAA | TTGTAAAGA | CCTAAACA | AAACAAATA | AGAAACACAA | 960 |
| AAACCTCAA | | | | | | |

Seq ID NO: 498 Protein sequence
Protein Accession #: NP_005037

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|------------|------------|------------|------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MARSLLLPLQ | ILLLSLALET | AGBRAQGDKI | IDGAPCARGS | HPWQVALLSG | NQLRCGGVLV | 60 |
| NERNVLTAH | CKQNEITYEL | GSDTLGDRRA | QRIKASESFR | HPGYSTQTHV | NDLMLVKLWS | 120 |
| QARLSSMWKK | VRLPGRCEFP | GTICTVSGNG | TTTSPDVTFP | SDLMCVDVKL | ISPQDCTEVY | 180 |
| KDLLENMLC | AGIPDSKRNA | CNGDSGGELV | CRGTLQGLVS | WGTFFCGQFN | DPGVYTVQVK | 240 |
| FTKWINDTMK | KHR | | | | | |

Seq ID NO: 499 DNA sequence
Nucleic Acid Accession #: NM_007196
Coding sequence: 182..962

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|------------|------------|------------|------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| GTTOCCAGAA | GCTCCCCAGG | CTCTAGTGCA | GGAGGAGGAG | GAGGAGGAGC | AGGAGGTGGA | 60 |
| GATTCACAGT | TAAAAGGCTC | CAGAACTGTG | TACCAGGCAG | AGAACTGAAG | TACTGGGGCC | 120 |
| TCCTCCACTG | GGTCCGAATC | AGTAGGTGAC | CCCGCCCTGT | GATTCTGGAA | GACCTCACCA | 180 |
| TGGGACGCCC | CCGACTCTGT | GCGGCCAAGA | CGTGGATGTT | CCTGCTCTTG | CTGGGGGGAG | 240 |
| CCTGGGCAGG | ACACTCCAGG | GACAGGAGG | ACAAGGTGCT | GGGGGTTCAT | GAGTGCCAAC | 300 |
| CCCATTCGCA | GCCTTGGCAG | GCGGCTTGT | TCCAGGGCCA | GCAACTACTC | TGTGGCGGTG | 360 |
| TCCTGTAGG | TGGCAACTGG | GTCTTACAG | CTGCCACTG | TAAAAAACCG | AAATACACAG | 420 |
| TACGCTCGGG | AGACCCACAG | CTACAGAATA | AAGATGGCCC | AGAGCAAGAA | ATACCTGTGG | 480 |
| TTCACTCCAT | CCACACCCCC | TGCTACAACA | GCAGCGATGT | GGAGGACCAC | AACCATGATC | 540 |
| TGATGCTCT | TCAACTGCGT | GACCAAGCAT | CCCTGGGGTC | CAAGGTGAAG | CCCATCAGCC | 600 |
| TGGCAGATCA | TTCGACCCAG | CCTGGCCAGA | AGTGACACCT | CTCAGGCTCG | GCACTGTCA | 660 |
| CCAGTCCCCG | AGAGAAATTT | CCTGACACTC | TCAACTGTGC | AGAAATGAAA | ATCTTTCCCC | 720 |
| AGAAGAAGTG | TGAGGATGCT | TACCCGGGGC | AGATCACAGA | TGGCATGGTC | TGTGACGGCA | 780 |
| GCAGCAAAGG | GGCTGACACG | TGCCAGGGCG | ATTCTGGAGG | CCCCCTGGTG | TCTGATGGTG | 840 |
| CACCTCAGGG | CATCATATCC | TGGGGCTCAG | ACCCCTGTGG | GAGGTCCGAC | AAACCTGGCG | 900 |
| TCTATACCAA | CATCTGCCGC | TACCTGGACT | GGATCAAGAA | GATCATAGGC | AGCAGGGGCT | 960 |
| GATTCAGGA | TAGCACTAG | ATCTCCCTTA | ATAACTCAC | AATCTCTC | | |

Seq ID NO: 500 Protein sequence
Protein Accession #: NP_009127

1 11 21 31 41 51

5 MGRPRPRAAK | TMMFLILLGG | AWAGHSRAQE | DKVLGGHECQ | PHSQPWQAAL | FQGOQLLOGG 60
 VLVGGNWLVT | AAHCCKPKYT | VRLGDHSLQN | KDGPEQSEIPV | VQSIFHPFCYN | SSDVEDHNHD 120
 LMLLQRRDQA | SLGSKVKPIS | LADHCTQPGQ | KCTVSGWGTV | TSPRENFDIT | LNCAEVKIFP 180
 QKKCEDAYPG | QITDGMVCAG | SSRQADTCQG | DSGSPLVCDG | ALQGITSNGS | DPCERSDKPG 240
 VYTNICRYLD | NIKKIIGSKG

Seq ID NO: 501 DNA sequence
 Nucleic Acid Accession #: NM_006103
 Coding sequence: 29..406

10 1 | 11 | 21 | 31 | 41 | 51
 15 CACCTGCACC | CCGCCCGGGC | ATAGCACCAT | GCCTGCTTGT | GSCCTAGGCC | CGCTAGCCGC 60
 CGCCCTCTCT | CTCAGCCTGC | TGCTGTTCGG | CTTCACCCTA | GTCTCAGGCA | CAGGAGCAGA 120
 GAAGACTGGC | GTGTGCCCGG | AGCTCCAGGC | TGACCAGAAC | TGCACGCAAG | AGTGGGTCTC 180
 GGACAGCGAA | TCGCGCCGAC | ACCTCAAGTG | CTGCAGCGCG | GGCTGTGCCA | CCTTCTGCCT 240
 TCTCTGCCCA | AATGATAAGG | AGGTTCTCTG | CCCCAGGTG | AACATTAACT | TTCCCCAGCT 300
 CGGCTCTCTT | CCGGACCACT | GCCAGTGGGA | CAGCCAGTGT | CCTGGCCAGA | TGAAATGCTG 360
 20 CCGCARTGGC | TGTGGGAAGG | TGTCTGTGT | CACTCCCAAT | TTCTGAGGTC | CAGCCACCAC 420
 CAGGCTGAGC | AGTGAAGGAG | GAAAGTTTCT | GCCTGGCCCT | GCATCTGGTT | CCAGCCCACC 480
 TGCCCTCCCC | TTTTTCGGGA | CTCTGTATTC | CCTCTGGGC | TGACACAGGC | TTCTCCCTTT 540
 CCAACCAAT | AAAGTAACCA | CTTTCAGCAA | AAAAAAAAAA | AAAA

25 Seq ID NO: 502 Protein sequence
 Protein Accession #: NP_006094

30 1 | 11 | 21 | 31 | 41 | 51
 MPACRLGFLA | AAILLSLLLF | GFTLVSGTGA | EKTGVCPQLQ | ADQNCITQECV | SDSECADNLK 60
 CCSAGCATFC | LLCPNDEKES | CPQVNIINFPQ | LGLCRDQCQV | DSQCPGQMKC | CRNGCGKVSC 120
 VTENF

35 Seq ID NO: 503 DNA sequence
 Nucleic Acid Accession #: NM_002407
 Coding sequence: 65..352

40 1 | 11 | 21 | 31 | 41 | 51
 CCTCCACAGC | AACTTCCTTG | ATCCCTGCCA | CGCAGACTG | AACACAGACA | GCAGCCGCCT 60
 CGCCATGAAG | CTGCTGATGG | TCCTCATGCT | GGCAGCCCTC | CTCTGCACT | GCTATGCAGA 120
 TTCTGGCTGC | AAATCCTCTG | AGGACATGGT | TGAAAAGACC | ATCAATTCGG | ACATATCTAT 180
 ACCTGAATAC | AAGAGCTTTC | TTCAAGAGTT | CATAGACAGT | GATGCCGCTG | CAGAGGCTAT 240
 45 GGGGAATTC | AAGCAGTGT | TCCTCAACCA | GTACATAGA | ACTCTGAAAA | ACTTTGGACT 300
 GATGATGCAT | ACAGTGTACG | ACAGCATTTC | GTGTAATATG | AAGAGTAATT | AACTTTACCC 360
 AAGCGTTTTC | GCTCAGAGGG | CTACAGACTA | TGGCCAGAAC | TCATCTGTTG | ATTGCTAGAA 420
 ACCACTTTTC | TTTCTGTGT | TGTCTTTTTC | TGTGGAACCT | GCTAGACAAC | TGTGAAACC 480
 TCAATTCAT | TTCCATTTC | ATAATAACT | GCAATC

50 Seq ID NO: 504 Protein sequence
 Protein Accession #: NP_002398

55 1 | 11 | 21 | 31 | 41 | 51
 MKLIMVLMIA | ALLLHCYADS | GCKLLEDMEV | KTINSDISIP | EYKELLQEFI | DSDAAAAMG 60
 KFKQCFLNQS | HRLKKNFGLM | MHTVYDSIWC | NMKSN

60 Seq ID NO: 505 DNA sequence
 Nucleic Acid Accession #: NM_014791.1
 Coding sequence: 171..2126

65 1 | 11 | 21 | 31 | 41 | 51
 TTGGCGGGCG | GAAGCGGCCA | CNACCCGGCG | ATGAAAAGA | TTCTTAGGAA | CGCCGTACCA 60
 GCGCGCTCTC | TCAGGACAGC | AGGCCCTGT | CCTCTGTCTG | GCGCGCGCTC | AGCCGTGCCC 120
 TCGCCCTCTC | AGGTCTCTTT | TCTAATTCCA | AATAAATCTG | CAAGAGGACT | ATGAAGATT 180
 ATGATGAATC | TCTCAATAT | TATGAATTAC | ATGAAACTAT | TGGGACAGGT | GGCCTTGCAA 240
 AAGTCAAACT | TGCCCTGCCAT | ATCTTACTG | GAGAGATGGT | AGCTATAAAA | ATCATGGATA 300
 70 AAAACACACT | AGGGAGTGAT | TTGCCCGGGA | TCAAAACGGA | GATTGAGGCC | TTGAAGAACC 360
 TGAGACATCA | GCATATATGT | CACTCTACC | ATGTGCTAGA | GACAGCCAAC | AAAATATTCA 420
 TGGTTCTTGA | GTACTGCCCT | GGAGGAGAGC | TGTTTGACTA | TATAATTTCC | CAGGATGGCC 480
 GTGCAGAGA | GGAGACCGGG | GTTGTCTTCC | GTGAGATAGT | ATCTGCTGTT | GCTTATGTGC 540
 ACAGCCAGGG | CATGCTCAC | AGGGACCTCA | AGCCAGAAAA | TTTGCTGTTT | GATGAATATC 600
 ATAAATTAAA | GCTGATTGAC | TTTGGTCTCT | GTGCAAAACC | CAAGGTAAC | AAGGATTACC 660
 75 ATCTACAGAC | ATGCTGTGGG | AGTCTGGCTT | ATGCAGCACC | TGAGTTAATA | CAAGGCCAAT 720
 CATATCTTGG | ATCAGAGGCA | GATGTTTGGG | GCATGGGCAT | ACTGTTATAT | GTTCTTATGT 780
 GTGGATTCTT | ACCATTGTAT | GATGATAATG | TAATGGCTTT | ATACAGAGAG | ATTATGAGAG 840
 GAAATATAGA | TGTTCCTAAG | TGGCTCTCTC | CAGTAGCAT | TCTGCTTCTT | CAACAAATGC 900
 80 TGACGGTGGG | CCCAAGAGAA | CGGATTCTTA | TGAATAATCT | ATGAAACCAT | CCTGGATCA 960
 TGCAGATTA | CACTATCTCT | GTGAGTGGC | AAACCAAGAA | TCCTTTTATT | CACTCTGATG 1020
 ATGATTGGT | AACAGAACTT | TCTGTACATC | ACAGAAACAA | CAGGCAACCA | ATGGAGGATT 1080
 TAATTTCACT | GTGGCAGTAT | GATCACCTCA | CGGCTACCTA | TCTTCTGCTT | CTAGCCAGAA 1140
 AGGCTCGGGG | AAAACAGATT | CGTTAAGGC | TTTCTCTCTT | CTCTGTGGA | CAAGCCAGTG 1200
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Seq ID NO: 506 Protein sequence
 Protein Accession #: NP_055606.1

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QKQSYLGSBA DVVSMGILLY VLAOCFLPFD DNNVMALYKK IMRGKIDVPE WLSPPSILL 240
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Seq ID NO: 508 Protein sequence
 Protein Accession #: NP_000573

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SEELNGAYKA IPVAQDLNAP SDWDSRGKDS YETSLIDQS ARTHSRKQSR LYKRKANDES 240
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| | TCCGACGGA | CCCTGGACAA | AGTGCCCAAG | TCAGAGGCT | ACTGCAGCG | TATCTCTGCG | 180 |
| 10 | CCCGAGGGA | CGCGCGCGA | GCGCTACACC | GAGTTCAGCC | TCCGCGTGA | GGCGACCCC | 240 |
| | GACTTCTACA | AGCGGGGAAC | CAGCTACCGC | GTAACACTTT | CAGCTGCTCC | TCCCTCCTAC | 300 |
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| | GGGTGACTG | ACCAACCCAT | CTTAGACTGC | TGTGCTGCG | GAAGTCCCAA | GTACAGACTC | 660 |
| | ACATTTTATG | GGAATTGGTC | CGAGAAGACA | CACCCAAAG | ATTACCTTCG | TCCGGCCAAC | 720 |
| | CACCTGGTCTG | CGATCATCGG | AGGATCCAC | TCCAAGAAAT | ATGTACTGTG | GGAATATGGA | 780 |
| 20 | GGATATGCCA | CGGAAGGCTT | CAACAAAGTT | GCAGAAATGG | GCTCACCCGT | GAAATGGAG | 840 |
| | GAAGAATTC | GACACAGAG | TGATGAGTCA | CTCACCGTCA | TCAAAGCCAA | AGCCCATGG | 900 |
| | CCAGCCTGGC | AGCCTCTCAA | CGTGAGAGCA | GCACCTTCAG | CTGAATTTTC | CGTGGACAGA | 960 |
| | ACGCGCCATT | TAATGTCTCT | CCTGACCATG | ATGGGCCCCA | GTCCCGACTG | GAACGTAGGC | 1020 |
| | TTATCTCGAG | AAGATCTGTG | CACCAAGGAA | TGTGGCTGGG | TCCAGAGGTT | GGTGCAAGAC | 1080 |
| 25 | CTGATTCCTT | GGACAGCTGG | CACCGACAGC | GGGGTGACCT | ATGAGTCAAC | CACCAAAACC | 1140 |
| | ACCATTCCTC | AGGAGAAAT | CGGCCCCCTG | ACCAGCCTGG | ACCATCTCTA | GAGTCTCTTC | 1200 |
| | TATGACCCAG | AGGGTGGTCT | CATCACTCAA | GTAGCCAGAG | TGTCTATCGA | GAGAATCGCA | 1260 |
| | CGGAAGGGTG | AACAATGCAG | TATTGTACCT | GACAATGTCT | ATGATATTGT | AGCTGACCTG | 1320 |
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| | CTGAACCTTT | TGGTACTAAA | TCCCTATTGG | AACCAAGACA | AAGGAAGCAA | AATTGGTCTC | 3300 |
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| 75 | TTCTGGAGG | GACCATATT | ACATCTCIGA | ACTACCTTTG | TATCCAACT | GTTTTAAATC | 4140 |
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| | GTGGATTGTT | TATTTTTTGT | TGTCATGGG | GAATTTATAA | GAAGCATCAA | GTCTCTTTCT | 4500 |
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Seq ID NO: 510 Protein sequence
Protein Accession #: BAB18461.1

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Seq ID NO: 512 Protein sequence
Protein Accession #: NP_003099.1

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QEPDEDEEP FHQQLLPFG QPQLLRRY NVKVPASPT LSSASPSPEG ASLYDEVVRAG 300
ATSGAGGGGR LYYSFKMITK QHPPLAQA LSPASSRSVS TS9SSSSGSS SSSSGEDADD 360
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Seq ID NO: 513 DNA sequence
Nucleic Acid Accession #: CAT Cluster

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Seq ID NO: 514 DNA sequence

Nucleic Acid Accession #: CAT cluster

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 TACAGGATTC TCTGGGTTGT ATTCCAGAA GTCTGGAGGT CATTTGGATA TTGTGGGCC 180
 CTGGCTTCA CTCTGACTTG TGTGACACAT AAAAATTGTG ATGAAATGTC CTATAGATGT 240
 CCTGCAGGTC TTAAGAAGAC CTTTCCAAAC TATGAAACAG CCCAGCAGCA CTGAGTTAGA 300
 GGTAAATCT GAACCTTGA ACCTAATAAC TATCTAAT CTACATAGAA TTGGCAAGTA 360
 GCATTCTATG TCTATGAACA GTATGCTTT TCTATATAAC AGAGAAAATC TTTTAAAGCA 420
 AACTACTCAG TTTAAACCT AATTCTTCTC ATAATCTCAG TACTTTTGA TGAAGACATA 480
 TCAATGCAAC AGTACACTCT TATTCAAGCA TTTGAAAGAA AGAATTCGAG ATCTAGTTTG 540
 TATCAGATAT TATAAATTAG TATGGTTTAT TCTTTGTCT GAAATCTTAC TTAATTTTIG 600
 GACTATAGGT TTAAGAAATG AAGCAGAGT TCTGCACCA TCAAGAAATG CTACATTATG 660
 CTTGAGTGAC AACTACTGTA ATGACAAAT ATCAGTGGCT TAATACRATG GTTTTCTCT 720
 CATACTTGT CATAAAGAGT CAGCAAGGAC CCTGCTCAT ATGGTCCCTC AGGACCCAG 780
 GGTGTGTGA AGCTCCACCA TTTAGATAG CTCCTTCAA AGTCAGCCAT CTTTGGCAGT 840
 CCAATGCCCC CACAGGCTG GCAAAATTG GCTCTGGATG GCTTCAAGGA TTGAGCATCG 900
 GGCAGTTAA ATGCTTTCAA CATGGAAGT GGACACCGGC CACTCCCACT CACATCCCT 960
 GGGCCAGAAC TAGGTCACTG GGGCCGAGC TAACCTCGGA GGGTGGGGA ATTGTAATTC 1020
 CTCATGTAC CCAAGTGA GAGAAGCCAG ATACTGAGAA ACATCAATAA TGGCTAACAG 1080
 AAATCCATT TACCATTCCT TTGCTTAAA GTGAAAGAT GAGTACTTTC ATCAATTGT 1140
 AAATCTACT TTTGAAGTAA ATCTGGTAG CTGTCATGG GGTCTGATTT CCAGAAAGCC 1200
 ATATGTATTT TGGGAATGAC ATTCACTTAA GCTCATAGAA TATCATTTAT TGAATTAATA 1260
 TGCCCTCAT TTGCAATACAG GACCAAAATG CACTAACCCAC AAAACCCCCC TCCCCAGGG 1320
 GCGCCGGGTC CCTATTCCCC TCATCTCCCT TAAATGAGGC ATTCTATGAT TTGGAATGGA 1380
 AGCCAGTTG TAGTCTAAG AATTTTACTT AATTCAAGAA TTATCTCAC TGAATATGT 1440
 CCAGTTCTGA AAGGAATGCA AAGTCAAAAT TTGCATCTC TTTGCTCAAG GGCCTTTAGA 1500
 TGTAAACAA CAGCATGAT ACAGGCTGA CAATGACAT ATGATTAAA TATGTTAAAC 1560
 AACTTATTA ATTGTGAATC AACAAAAAT TATGTTCTTT ATTTATGGT TTGCAATAGT 1620
 CTTGACTCAC TCCCTACATA CCGCTCTTGT TCCTCAGTTC TTATCCCTGA TTTCTTACAG 1680
 GATGGCTTAA GACAGCTGTA GATGTTTTA TTATGCAAAA AAAAAAATA AAAAGTCGAC 1740
 GCGCCGCGA ATTTAGTAG

Seq ID NO: 515 DNA sequence

Nucleic Acid Accession #: NM_012427

Coding sequence: 41..924

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 31
 41
 51
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 CCTCGATGT GGGTCTCTCT TGTCTGATC ACAGCCCTGC TTCTGGGGGT CACAGAGCAT 120
 GTTCTCGCA ACAAGATGT TTCTGTGAC CACCCCTCTA ACACCGTGCC CTCTGGGAGC 180
 AACCAGGACC TGGAGCTGCG GGCCTGGGAA GACGCGCGGT CGATGACAG CAGCAGCCGC 240
 ATCATCAATG GATCCGACTG GATATGACAC ACCCAGCCGT GGCAGGCGCG CTTGTTGCTA 300
 AGGCCCAACC AGCTCTACTG GGGGGCGGTG TTGGTGCATC CACAGTGGCT GCTCAGGGCC 360
 GCGCACTGCA GGAAGAAATG TTTCAAGTCT CGTCTCGGCC ACTACTCCCT GTCACCAATT 420
 TATGAATCTG GGCAGCAGAT GTTCCAGGGG GTCAATCCA TCCCCACCC TGGCTACTCC 480
 CACCCCTGCC ACTCTAAGCA CCTCATGCTC ATCAAACTGA ACAGAAAT TCGTCCCACT 540
 AAAGATGTCA GACCCATCAA GGTCTCTCTT CATTTGCCCT CTGCTGGGAC AAAGTCTTTC 600
 GTGCTCTGCT GGGGACAAAC CAAGAGCCCC CAAGTGCACT TCCCTAAGGT CCTCCAGTGC 660
 TTGAATATCA GCGTCTAAG TCAAAAAGG TGGAGGATG CTTACCCGAG ACAGATAGAT 720
 GACACCATGT TCTGACCGGG TCAAAAAGCA GGTAGAGACT CCTGCGAGGG TGAATCTGGG 780
 GGGCCTGTGG TCTGCAATGG CTCCTGCGAG GGAATCTGT CTGCGGGAGA TTACCTCTGT 840
 GCGCGGCCCC ACAGACCGGG TGTCTACAGC AACCTCTGCA AGTTCACCAA GTGGATCCAG 900
 GAACCATCTC AGGCCAATCT CTGAGTCTATC CCAGGACTCA GCACACCGGC ATCCCCACT 960
 GCTGCAGGGA CAGCTCTGAC ACTCTTTTCA GACCTCTATT CCTTCCAGA GATGTTGAGA 1020
 ATGTTCTATC CTGAGCCCC TGACCCCATG TCTCTGAGC TCAGGGTCTG CTTCCTCCAC 1080
 ATTGGGCTGA CCGTGTCTCT CAGTTGAAC CTTGGGAACA ATTTCCAAA CAGTCCAGGG 1140
 CGGGGGTTGC GTCTCAATCT CTTGGGGGCA CTTTCATCCT CAAGCTCAGG GCGCATCCCT 1200
 TCTCTGACG TCTGACCCAA ATTTAGTCCC AGAAATAAAC TGAGAAGTGG AAAAAAATA

Seq ID NO: 516 Protein sequence

Protein Accession #: NP_036559

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 31
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 51
 NATARPPWNV VLCAITALL LGVTEHVLAN NDVSCDHPSN TVPSGSNDQL GAGAGEDARS 60
 DSSSRIRING SDCMHTQPW QAALLLRNP LYCGAVLVRP QWLLTAHCR XCVFVRLGH 120
 YSLSPVVEGQ QMFPQGVKSI PRPGYSEPHG SMDLMLIKLN RRIKPTKDRV PINVSHCPIS 180
 AGTKCLVSGW GTKSPQVHF PKVLQCLNIS VLSQKRCEDA YFRQIDTDF CAGDKAGRDS 240
 CQDGGGPPV CNGSLQLVLS WGDYPCARPN RGVYTNLCK FTRWIOBTIQ ANS

Seq ID NO: 517 DNA sequence
Nucleic Acid Accession #: NM_001719
Coding sequence: 123...1418

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CTGCCACCTG GGGCCGGTGC GGGCCGGAGC CCGGAGCCCG GGTAGCGCGT AGAGCCGGCG 120
CGATGCACGT GCGCTCAGTG CGAGCTGCGG CGCCGCACAG CTTCGTGCGG CTCIGGGCAC 180
10    CCTGTTCCT GCTGGCTCC GCCCTGGCG ACTTCAGCCT GGACACAGAG GTGCACTCGA 240
GCTTCATCCA CCGGCGCCTC CGCAGCCAGG AGCGCGGGGA GATGCAGCGC GAGATCCTCT 300
CCATTTTGGG CTGTGCCCAC CGCCCGCGCC CGCACTCCA GGGCAAGCAC AACTCGGCAC 360
CCATGTTTCT GCTGGACCTG TACAACGCCA TGGCGGTGGA GGGGGCGGCG GGGCCCGGCG 420
GCCAGGGCTT CTCTACCCG TACAAGGCCG TCTTCAGTAC CCGGGGCCCG CCTCTGGCCA 480
15    GCCTGCAAGA TAGCCATTTC CTCACCGACB CCGACATGGT CATGAGCTTC GTCAACCTCG 540
TGGACATGTA CAAGGAATTC TTCCACCCAC GCTACCACCA TCGAGAGTTC CGGTTTGATC 600
TTTCCAAGAT CCCAGAAGGG GAAGCTGTCA CGGCAGCCGA ATTCCGATC TACAAGGACT 660
ACATCCGGGA AGCTTCGAC AATGAGACGT TCCGATCAG CGTTTATCAG GTGTCCAGG 720
AGCACTTGGG CAGGGAATCG GATCTCTTCC TGCTGACAG CGCTACCCTC TGGGCTCTCG 780
20    AGGAGGGCTG GCTGGGTGTT GACATCACAG CCACCAGCAA CCACTGGGTG GTCAATCGGC 840
GGCACAACCT GGGCTTGCAG CTCTCGGTGG AGACCTTGGG TGGGCAGAGC ATCAACCCCA 900
AGTTGGGGGG CCTGATTTGG CGGCACGGGC CCCAGAACAA GCAGCCCTTC ATGGTGGCTT 960
TCTTCAAGGC CAGCGAGGTC CACTTCCGCA GCATCCGGTC CAGGGGGAGC AAACAGGCGA 1020
GCCAGAACCG CAGGGAATCG CCCAAGAACC AGGAAGCCCT CGCGATGGCC AACGTGGCAG 1080
25    AGAACAGCAG CAGCAGCCAG AGCAGGGCCT GTAGAGAGCA CGAGCTGTAT GTCAGCTTCC 1140
GAGACCTGGG CTGGCAGGAC TGGATCATCG CGCCTGAAGG CTACGCCGCG TACTACTGTG 1200
AGGGGGAGTG TGCCCTCCCT CTGAATCCTT ACATGAACGC CACCAACCA CCGATCGTGC 1260
AGACGCTGGT CCACTTCATC AACCCGGAAA CGGTGCCCAA GCCCTGCTGT GCGCCACGCG 1320
30    AGCTCAATGC CATCTCCGTC CTCTACTTCG ATGACAGCTC CAACGTCATC CTGAAGAAAT 1380
ACAGAAACAT GGTGGTCCGG GCCTGTGGCT GCCACTAGCT CCTCGAGAA TTCAGACCCT 1440
TTGGGGCCAA GTTTTCTTGG ATCCTCCATT GCTCGCCTTG GCCAGGAACC AGCAGACCAA 1500
CTGCCCTTGG TGAAGACCTT CCCTCCCTAT CCCCAACTTT AAAGGTGTGA GAGTATTAGG 1560
AAACATGAGC AGCATATGCC TTTTGATCAG TTTTTCAGTG GCAGCATCCA ATGAACAAGA 1620
35    TCCTCAAGC TGTCAGAGCA AAACCTAGCA GGAAGAAAGA ACAACGCATA AAGAAAGATG 1680
GCCGGGCCAG GTCATTGGCT GGGAAAGTCT AGCCATGCAC GGACTCGTTT CCAGAGGTAA 1740
TTATGAGGCG CTACCAAGCA GGCACCCAG CCGTGGGAGG AAGGGGGCGT GGCAGGGGAT 1800
GGGCACATTG GTGTCTGTGC GAAAGGAAAA TTGACCCGGA AGTTCCTGTA ATAAATGTCA 1860
CAATAAAACG AATGAATG

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40 Seq ID NO: 518 Protein sequence
Protein Accession #: NP_001710

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ILGLPHRRPR HLGKHNHNSP MPMLDLYNAM AVEEGGGPGG QGFSYPYKAV FSTQGPPLAS 120
LQDSHFLIDA DMWMSFVNLV EHDKEFFHPR YHREFRFDL SKIPEGEAVT AAEFRIYKDY 180
IIRERDNTSF RISVYQLQRE HLGRESDLFL LDRSLTNASE EGMVLVEDITA TSNHWVNVNR 240
HNLGLQLSVE TLGQSINPK LAGLIGRHGB QNKQPFMVAF EKATEVHFRS IRSTGSKQRS 300
50    QNRSKTFKMQ EALRMANVAE NSSSDQRQAC KHELYVSVFR DLGWDWIIA PEGYAAAYCE 360
GECAPFLNBY MNATNHAIVQ TLVHFLNPST VKPKCCAPTQ LNAISVLYFD DSNVILKKY 420
RNMVVRACGC H

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55 Seq ID NO: 519 DNA sequence
Nucleic Acid Accession #: Eos sequence
Coding sequence: 264...782

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60      1      11      21      31      41      51
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TCATCGCGGG ACTAATTTTC CTTAAATTT AGACTTGCAC AGTAAGGACT TCAACTGACC 120
TTCTTCAGAC TGAGAAGTGT TTCCAGTATA TACATCAAGT CACTGAGATC TCCAGCACCC 180
TGCCGGTGGC ACTACTGAGA GACGAGGTGC CAGGGTGGTT CCTGAAAGTG CTTGAGCCCC 240
AACTTATCAG CAGGAGCTC ATCATGCTGA CAGAAGTCAT GGAGGTCTGG CATGGCTTAG 300
65    TGATCGCGGT GGTGTCCCTC TTCTGCGAG CTTGCTTCTT CACCGCCATC AACTACTTGC 360
TCAGCAGGCA CATGCCCCAG AAGAGTGAAC AGATACTGAA AGCGGCCAGT CTCCAGGTTC 420
CCAGGCCCGC CCGTCCCGAC CATCATCCAC CTGCTGTCAA AGAGATGAAG GAGACTCAGA 480
CAGAGAGAGA CATCCCAATG TCTGATTCCC TTTACAGGCA TGACAGCGAC ACACCCCTCAG 540
ATAGCTTGGG TAGCTCCCTG AGTTCGCTTC CTGCTGCCA GGCACAGAG GATGTGGATT 600
70    ACACACAAGT CGTCTTTTCT GACCTGAGG AACTAAAAA TGACTCCCGG CTGACTATAG 660
AGAACATARA GGAATTCACA GATTATGTCA ATGTCAATCC AGAAGACAC AAGCCAGATT 720
TCTGGTATTT GTCAACCCCT GCTCTGTCG AGCCAGCGGA ATATGATCAA GTGGCATGT 780
GAATTCACAA TATTTTAAAT GGGGTCCAGT TCTCTATGGA TTTCTACATT TAATTTGTAG 840
75    GGAATGCCA TTTTCCCGC TTAACCAAGG CATGGGGCTC ACAAGTCTAT GAGACAGGC 900
CAAAAGAAAT GTGAGAAGA AAACGTATAA ATACACAGAG GTCTCAGA CCCATGCACT 960
CCTGTCTGT ACCCAAAAAA GCTGTCTGTT CCTCAAAAC AAAACAAGG CTGGCTGGG 1020
AAACAGGCC AATGCCCGG CAAGAAAGGT TGAGATCAGA TGTAGGAAG AACTTTCAG 1080
TAAAGTATGA GAACATATGA GTCCATCAGC AGAGATAGTA GTGAAGTCTC TCCCCAGGGA 1140
80    AATTTTAAA AAGGTGAAT CAGCTGTGT AGAGTCTAT TTGSCAATCT CATGTTTAAA 1200
TGACTTCCCT TTGAGCTCTT TAATTATTGG CAATAAACAA CTCTTTTAAA AGTTTAAA 1260
AAATAGCAA CCACACCA

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Seq ID NO: 520 Protein sequence
Protein Accession #: Eos sequence

| | | | | | | | |
|----|--|-------------|-------------|-------------|-------------|-------------|------|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 5 | MLTEVMEVWH | GLVIAVVSFL | LQACFLTAIN | YLLSRHMAEK | SEQILKAASL | QVPRPSPGHH | 60 |
| | HPPAVKEMKE | TQTERDIPMS | DSLYRHDSDT | PSSDLSLSSCS | SPPACQATED | VDYTTQVVFSD | 120 |
| | PGLKND52L | DYENIKRITD | YVNVNPEREK | PSFWYFVNPA | LSEPAEYDQV | AM | |
| | Seq ID NO: 521 DNA sequence | | | | | | |
| 10 | Nucleic Acid Accession #: Eos sequence | | | | | | |
| | Coding sequence: 107..328 | | | | | | |
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 15 | CTGCTCTGTC | TGAGCCACGG | GAATATGATC | AGTGGCCAT | GTGAATCCCA | AATATTTTAA | 60 |
| | ATGGGGTCCA | GTTCCTCTATG | GATTCTTACA | TTTAATTTGT | AGGGAATGTC | CATTTTCCOC | 120 |
| | CCCTTAACAA | GGCATGGGGC | TCACAAGTCT | ATGGAGACAG | GCCAAAAGA | ATGTGGAGAA | 180 |
| | GAAAACTGAT | AAATACACAG | AGGTCTCTCA | GACCCATGGA | CTCCTGGTCT | GTACCCAAAA | 240 |
| | AGCTGTTCG | TTCTCTAAAA | ACAAAAACAA | GGCTTGGCTG | GGAAAAACAG | CCAATGCCCC | 300 |
| | GGCAAGAAAG | GTTGAGATCA | GATGTTAGGA | AGAACITTTCA | GGTAAAGTAT | GAGAACTATG | 360 |
| 20 | GAGTCCATCA | GCAGAGATAG | TAGTGAAGTC | TCTCCCCAGG | GAAAAATTTA | AAAAGTTTGA | 420 |
| | ATCAGCTGTT | GTAGAGTTCT | ATTGGCAAT | CTCATGGTTA | AATGACTTCC | CTTTGAGCTC | 480 |
| | TTTAATATT | GGCAATAAAC | AACCTCTTTA | AAAGTTTAA | ATAAAATAGC | AACCAACCAC | 540 |
| | A | | | | | | |
| 25 | Seq ID NO: 522 Protein sequence | | | | | | |
| | Protein Accession #: Eos sequence | | | | | | |
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 30 | MPFFPLKQGM | GLTSLWRQAK | KNVEKKIDKY | TEVLKTHGLL | VCTQKSCSFL | KNKNKAWLQK | 60 |
| | QANAPARKVE IRC | | | | | | |
| | Seq ID NO: 523 DNA sequence | | | | | | |
| 35 | Nucleic Acid Accession #: Eos sequence | | | | | | |
| | Coding sequence: 211..1895 | | | | | | |
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 40 | GGATCTGAGG | GGCGCCCACT | CACCTCTCTC | ACGTTCTGCT | GCTGGGCGGG | AGGAGCGGAT | 60 |
| | GGGGCTTGGG | AGGCGCCTCG | CTCTCCAGTC | CCTATCCACC | CACAGGTTTT | TTGGGTGCGA | 120 |
| | GGGGAATTAT | CTGATAAAAT | TCCTGGGTTA | ATATTTTAA | AAACGGAGAG | TTTTTAAAAA | 180 |
| | TGATTTTTTT | CCCTCGAAAA | TGACCTTTTT | ATGCTTGGAA | GCACTTTGTC | AAACCAGCATA | 240 |
| | GTGCTTTTTT | TTTTCTCTTC | TTTTCTACG | ATAAATGAAA | GCACTTTCTT | AAGAAAAAGG | 300 |
| | CACAGGTTC | TTGAACAGCT | GGATTCGAT | GGCACCATTA | CTATAGAGGA | GCAGATTGTC | 360 |
| 45 | CTTGTGCTGA | AAGCGAAGT | ACAATGTGAA | CTCAACATCA | CAGCTCAACT | CCAGGAGGGA | 420 |
| | GAGGTAATT | GTTCCTCCGA | ATGGGATGGA | CTCAATTGTT | GGCCGAGAGG | AACAGTGGGG | 480 |
| | AAAAATACGG | CTGTGGGGTT | CCCTCCATAT | ATTATGACT | TCAACCATAA | AGGAGTTGCT | 540 |
| | TTCCGACACT | GTAACCCCAA | TGGAACATGG | GATTTATGTC | ACAGCTTAAA | TAAACATGG | 600 |
| | GCCAAATTAT | CAGATCGCCT | TGCTTTCTG | CAGCCAGATA | TCAGCATAGG | AAAGCAAGAA | 660 |
| 50 | TTCTTTGAAC | GCCTCTATGT | AATGTATACC | GTTGGCTACT | CCATCTCTTT | TGGTTCCCTG | 720 |
| | GCTGGGCTAT | TTCTCTATCT | TGCTTACTTC | AGACGATTGC | ATTGCACTAG | GAACTATATC | 780 |
| | CACATGCACT | TATTTGTGTC | TTTCATGCTG | AGAGCTACAA | GCATCTTTGT | CAAAGACAGA | 840 |
| | GTAGTCCATG | CTCACAATAG | AGTAAAGGAG | CTGGAGTCCC | TAATAATGCA | GGATGACCCA | 900 |
| | CAAAATCCCA | TTCAGCAAC | TTCTGTGGAC | AAATCACAA | ATATCGGGTG | CAAGATTGCT | 960 |
| 55 | GTTGKGATGT | TTATTTACTT | CCTGGCTACA | AAATATTATT | GGATCCCTGT | GGAGGGTCTC | 1020 |
| | TACCTGCATA | ATCTCATCTT | TGTGGCTTTC | TTTTCCGACA | CCAAATACCT | GTGGGGCTTC | 1080 |
| | ATCTGTATAG | CTCTGGGGTT | TCCAGCAGCA | TTTGTGCGAG | CATGGGCTGT | GGCAGAGCCA | 1140 |
| | ACTCTGGCTG | ATCGGAGGTG | CTGGGAACCT | AGTCTGGGAG | ACATCAAGTG | GATTATACAA | 1200 |
| | GCACGATCT | TGGGCTGANT | TTTATTCGT | TTCTGAATAC | GGTTAGAGTT | | 1260 |
| 60 | CTAGCTACCA | AAATCTGGGA | GACCAATGCA | GTTGGGCATG | ACACAAGGAA | GCAATACAGG | 1320 |
| | AAACTGGCCA | AATCGACACT | GGTCTGTGTC | CTAGTCTTTG | GAGTGCAATTA | CATGTGTTC | 1380 |
| | GTATGCTGTC | CTCACTCTTT | CACCTGGGCTC | GGGTGGGAGA | TCCGCAATGCA | CTGTGAGCTC | 1440 |
| | TTCTTCAACT | CCCTTCAGGG | TTCTTTGTG | TCTATCATCT | ACTGTACTCG | CAATGGAGAG | 1500 |
| | GTTCAGGCMG | AGGTGAAGAA | GATGTGGAGT | CGGTGGAATC | TCTCCGTGGA | CTGGAAAAGG | 1560 |
| 65 | ACACCGCCAT | GTGGCAGCCG | CAGATGCGGC | TCACTGCTCA | CCACCGTGAC | GCACAGCACC | 1620 |
| | AGCAGCCAGT | CACAGGTGGC | GGCCAGCACA | CGCATGGTGC | TTATCTCTGG | CAAAGCTGCC | 1680 |
| | AAGATCGCCA | GCAGACAGCC | TGACAGOCAC | ATCACCTTAC | CTGGCTATGT | CTGGAGTAAC | 1740 |
| | TCAGAGCAGG | ACTGCCCTGC | ACACTCTTTC | CACGAGGAGA | CCAAGGAAGA | TAGTGGGAGG | 1800 |
| 70 | CAGGGAGATG | ATATTCTAAT | GGAGAAGCCT | TCCAGGCCTA | TGGAATCTAA | CCCAGACACT | 1860 |
| | GAAGGATGCC | AAGGAGAAAC | TGAGGATGTT | CTCTGA | | | |
| | Seq ID NO: 524 Protein sequence | | | | | | |
| | Protein Accession #: Eos sequence | | | | | | |
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 75 | MLRSSLSLST | VLPLPSSFT | INESLSRKR | HRFLEQLDSD | GTITIEBQIV | LVLKAKVQCE | 60 |
| | LNITAGLQEG | EGNCFFPFDG | LICNPRGTVG | KISAVPCFPY | IYDFNRKGA | PFHCNENGTV | 120 |
| | DFMHSLNKTV | ANYSDCLRFL | QPDISIGKQK | FFERLYVMYT | VGYSIQFGL | AVAILLIQYF | 180 |
| 80 | RRLLHCTENY | EMHLFVSFML | RATSI PVKDR | VVHAHIGVKE | LESIMQDDP | QNSIEATSVD | 240 |
| | KSDYIGCKIA | VVMFYIPLAT | NYTWILVEGL | YLNHLIFVAF | FSDTKYLWGF | ILIGWGFPA | 300 |
| | FVAAMAVARA | TLADARCNEL | SAGDIKNTYQ | APILAAIGLN | FILELNTVRV | LATKIWEINA | 360 |
| | VGHDTKQYR | KLAKSTLVLV | LVPGVHYIVF | VCLPHSFTGL | GWSIRMHCEL | FFNSFQGFV | 420 |
| | SIIYCCNGE | QAQEVKRWMS | RWNLVVDWKR | TPPCGSRRCG | SVLTITVHST | SQSQVAAST | 480 |

RMVLISGKAA KIASRQPDSEH ITLPGYVWSN SEQDCLPHSF HEETKEDSGR QGDDILMEKP 540
SRPMESNPDT EGCQGETEDV L

Seq ID NO: 525 DNA sequence
Nucleic Acid Accession #: NM_005048
Coding sequence: 143..1795

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    TGGGCGAGCC AAGTTGGCAA CTGGGAAGCT TCTCCCGGCG TCTGGAGGAG GGTCCTCTGT 120
    TCTTCTTACA GCGGTTCCGG GCATGGCCGG GCTGGGGGCG TCGCTCCACG TCTGGGGTTG 180
    GCTAATGTCT GGCAGCTGCC TCCGTGGCCG AGCCGAGCTG GATCTGTATG GCACCATTAC 240
    TATAGAGGAG CAGATTGTCC TTGTGCTGAA AGCBAAGTA CAATGTGAAC TCAACATCAC 300
    AGCTCAAGTC CAGGAGGGAG AAGGTAATTG TTCCCTGAA TGGGATGGAC TCATTGTGTT 360
    GCGCAGAGGA ACAGTGGGGA AAATATCGGC TGTTCCATGC CCTCCTTATA TTTATGACTT 420
    CAACCATAAA GGAGTTGCTT TCCGACACTG TAACCCCAAT GGAACATGGG ATTTTATGCA 480
    CAGCTTAAAT AAAACATGGG CCAATTATTC AGACTGCCCT CGCTTCTGCG AGCCAGATAT 540
    CAGCATAGGA AAGCAAGAAT TCCTTGAACG CCTCTATGTA ATGTATACCG TTGGCTACTC 600
    CATCTCTTTT GGTTCCTTGG CTGTGGCTAT TCTCATCATT GGTTACTTCA GAGCATTGCA 660
    TTGCACTAGG AACATATATC ACATGCACTT ATTTGTGTCT TTCATGTCTG GAGCTACAAG 720
    CATCTTTGTC AAGACAGAGG TAGTCCATGC TCACATAGGA GTAAAGGAGC TGGAGTCCCT 780
    AATAATGCAG GATGACCCAC AAAATTCCAT TGAGGCAACT TCTGTGGACA AATCACAATA 840
    TATCGGCTGC AAGATTGCTG TTGTGATGTT TATTTACTTC CTGGCTACAA ATTATTATTG 900
    GATCTGTGIG GAGGCTCTCT ACCTGCATAA TCTCATCTTT GTGGCTTCTT TTTGGGACAC 960
    CAAATACCTG TGGGGCTTCA TCTGTATAGG CTGGGGGTTT CCAGCAGCAT TTGTTGCAGC 1020
    ATGGGCTGTG GCACGAGCAA CTCTGGCTGA TGGGAGGTGC TGGGAACCTA GTGCTGGAGA 1080
    CATCAAGTGG ATTTATCAAG CACCGATCTT AGCAGCTATT GGGCTGAATT TTATTCIGTT 1140
    TCTGAATACG GTTAGAGTTC TAGCTACCAA AATCTGGGAG ACCAATGCAG TTGGGCTATG 1200
    CACAAGGAGG CAATACAGGA AACTGGCCAA ATCGACACTG GTCTGTGTTT TAGTCTTTGG 1260
    AGTGCAATAC ATCTGTGTGG TATGCGCTGC TCACTCCTTC ACTGGGCTCG GGTGGGAGAT 1320
    CCGCATGCAC TGTGAGCTCT TCTTCAACTC CTTCAGGGT TTCTTTGTGT CTATCATCTA 1380
    CTGCTACTGC AATGGAGAGG TTCAGGCAGA GGTGAAGAAG ATGTGGAGTC GGTGGAATCT 1440
    CTCGCTGACG TGGAAAAGGA CACCGCCATG TGGCAGCCGC AGATCGGCTC CAGTGCCTAC 1500
    CACCGTGACG CACAGACCCA GCAGCCAGTC ACAGGTGGCG GCCAGCACAC GCATGGTGCT 1560
    TATCTCTGCG AAAGCTGCCA AGATCGCCAG CAGACAGCCT GACAGCCACA TCCTTTTACC 1620
    TGGCTATGTC TGGAGTAACT CAGAGCAGGA CTGCGTCCCA CACTCTTTCC ACCAGAGAAC 1680
    CAGGAAGAT AGTGGGAGGC AGGGAGATGA TATTCTAATG GAGAAGCCTT CCAGGCCAT 1740
    GGAATCTAAC CCAGACACTG AAGGATGCCA AGGAGAAACT GAGGATGTTT TCTGAATGGA 1800
    CATTTGTGGC TGACTTTTAT GGGCIGGTCC AATGGCTGCT TGTGTGAGAG GCTTGGCTG 1860
    ATACTCCTAT GCTTGAGTTC AAAGGCTGAA AATTCAGTTA AGGTGTTACT TAATAATAGT 1920
    TTTTAGGCTC CATGAATGCG CTCTGTAAA TACTAACGAC ATGAAAATGC AAGTGTCAAT 1980
    GGAGTAGTTT ATTACTCTCT ATTGCGATCA AGTTTCCCTC TAAATTAATG TATGATATT 2040
    GCTCTGIGAT TGTTCATTTT TTYCTGCTAC TTTTGGGTAG AAAAAGATT CAATTGCTTG 2100
    GCTGTAGCTT TCTCTCATAT ATATCACCTT AAATATAATG AAGATCTTTT AGTGTGTATC 2160
    ATTTCTCTTT TAGAAGCTAG TATTCTCTTA TTTCTTACT TAATGTACTT CTATCAGTGC 2220
    ATTTATTGTC CTGTGCTATA GGAGCAATTA GGAATCTAAA AAATATATGG GAAGATAAAA 2280
    GATCTAAGAA CAGTACTCTG CTGGAATAAT AGTTGGCTGG ACATTGATAA AATATGCAT 2340
    TTATAACAAT TACATGTGTT TTTGGGAACA AGGAAAATT CTCAAAAAG AATATTTCAC 2400
    ACATCCCTTC TTTGAATGG CCTCTTTGIG ACCAGCCAGA CCTCAGGTCT TCACCTCTTC 2460
    TTCTTTGTAA ACCATGTGCT GTGGAAGATG TTCTCAGTT AGTGAGCTTG TGTCTGCAAA 2520
    TTGATTTGTT TGTATGATGA TTTGATAGC AATCATGCT GCATCTATAT CTTTCTCTG 2580
    TTTGAGCTGT TACTACATTG TACATGGCAT GTGGGATCAA TTAATAATT GTTTTAAAAA 2640
    T

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Seq ID NO: 526 Protein sequence
Protein Accession #: NP_005039

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1      11      21      31      41      51
|      |      |      |      |      |
60  MAGLGASLHV WGLMLGSC LARAQLDSG TITREQIVL VLGAKVQCEL NITAQLOBGE 60
    GNCFFEMDGL ICHPRGTGVK ISAVPCFFYI YDFNEKGVAF RHCNPNGTWD FMHSLAKTWA 120
    NYSDCLEFLQ PDISIGKQEF FERLYVMYTV GYSISFGSLA VAILLIGYFR RLECHRYIH 180
    MHLFVSRLMR ATSIFFVKDBV VHAHIGVKEL ESLIMQDDPQ NSIETSVDK SQYIGCKLAV 240
    VMFIYFLATN YYWILVEGLY LKHLIPVAFV SDTKYLNQFI LIGWGFPAF VAAWAVARAT 300
    LADARCWELS AGDIKHYIQA PLLAAIGLNF ILFLNTVKVL ATKIWNNAV GHDTREKYRK 360
    LAKSTLVLVV VFGVHYIVFV CLPESFTGLG WELRMECEL FNSFQGFVVS LIYCYNGEV 420
    QAEVKMWSR WNLGVDWERT PPGSRRCGS VLTIVTSTB SQSQVAESTR MVLISGKAAK 480
    IASRQPDSEH ITLPGYVWSN SEQDCLPHSF HEETKEDSGR QGDDILMEKP 540
    SRPMESNPDT EGCQGETEDV L

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Seq ID NO: 527 DNA sequence
Nucleic Acid Accession #: XM_036683
Coding sequence: 38..3655

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1      11      21      31      41      51
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75  GCTTTGCCCA GTAGTTGGAA AGTGAAGCTG ACTCGTGATG GTTCTCTGCT CACTTTGGTT 60
    GATAGCAGCG GCTCTGCTAG AGGTTAGGAC TTCACTGATG GGACAAGCTG GTAATGAAGA 120
    AATGCTGCAA ATAGATTATC CAATAAAGAG ATATAGAGAG TATGAGCTCG TGAATCCAGT 180
    CAGCACAAT CTAGAAGGAC GCTATCTCTC CCATCTCTCT TCTGCGAGTC ACAAAAGAG 240
    GTCAGCGAGG GACGTGTCTT CCAACCTCGA GCAGTTGTTT TTTAACATCA CGGCATTG 300
    AAAAGATTTT CATCTGCGAC TAAAGCCCAA CACTCAACTA GTAGCTCCTG GGGCTGTTGT 360
    GAGTGGCAT GAGACATCTC TGTGCTCTCG GAATATAACC GATCCCATTA ACAACCATCA 420

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| | | | | | | | |
|----|-------------|-------------|-------------|-------------|-------------|-------------|------|
| | ACCAGGAAGT | GCTACGTTATA | GAATCCGGAA | AACAGAGCCT | TTGCAGACTA | ACTGTGCTTA | 480 |
| | TGTTGGTGAC | ATCGTGGACA | TTCCAGGAAC | CTCIGTTGCC | ATCAGCAACT | GTGATGGTCT | 540 |
| | GGCTGGAAATG | ATAAAAGTGG | ATAATGAAGA | GTATTTTCATT | GAACCCCTGG | AAAGAGGTAA | 600 |
| 5 | ACAGATGGAG | GAAGAAAAG | GAAGGATTCA | TGTTGTCTAC | AAGAGATCAG | CTGTAGAACA | 660 |
| | GGCTCCCAT | GACATGTCCA | AAGACTTCCA | CTACAGAGAG | TCGACCTTGG | AAGGCCTTGA | 720 |
| | TGATCTAGGT | ACTGTTTATG | GCAACATCCA | CCAGCAGCTG | AATGAAACAA | TGAGAUGCCG | 780 |
| | CAGACACCG | GGAGAAAACG | ATTACAATAT | CGAGGTACTG | CTGGGAGTGG | ATGACTCTGT | 840 |
| | GGTCCGTTTC | CATGGCAAAG | AGCACGTCCA | AACTACCTC | CTGACCCATA | TGAACATTGT | 900 |
| | GAATGAATT | TACCATGATG | AGTCCCTCGG | AGTGCAATATA | AATGTGGTCC | TGGTGCAT | 960 |
| 10 | GATAATGCTG | GGATATGCAA | AGTCCATCAG | CCTCATAGAA | AGGGGAAACC | CATCCAGAG | 1020 |
| | CTTGAGGAT | GTGTGTGCTG | GGGCGTCCCA | ACAGCAAAGA | TCTGATCTCA | ACCACCTCTGA | 1080 |
| | ACACCATGAT | CATCAATTT | TTTTAACCG | GCAAGACTTT | GGACCTGTCTG | GAATGCAAGG | 1140 |
| | ATATGCTCCA | GTACCGGCA | TGTGTCTATC | AGTGAGAAAT | TGTACCTTGA | ATCATGAGGA | 1200 |
| | TGGTTTTCA | TCTGCTTTTG | TAGTAGCCCA | TGAACGGGC | CATGTGTGG | GAATGGAGCA | 1260 |
| 15 | TGATGGACAA | GGCAGCAGGT | GTGGTGTATG | GACTGCTATG | GGAGGTGTCA | TGGCTCCCTT | 1320 |
| | GGTACAAACA | GCAATCCATC | GTACCCACTG | GTCCCGATGC | AGTGGTCAAG | AACCTGAAAAG | 1380 |
| | ATATATCCAT | TCTTATGATC | GTCTCTTGA | TGACCTTTT | GATCATGATT | GGCTTAACT | 1440 |
| | CCAGAACCTT | CCTGGAATCA | ATTATTCTAT | GGATGAGCAA | TGTCTTTTG | ATTTTGGTGT | 1500 |
| | TGGCTATAAA | ATGTGACCG | CGTTCCGAAC | CTTTGACCCA | TGTAAACAGC | TGTGGTGTAG | 1560 |
| 20 | CCATCCTGAT | AATCCTACT | TTTGTAAAG | TAAAAGGGA | CCTCCACTTG | ATGGGACTGA | 1620 |
| | ATGTGCTGCT | GGAAAATGTT | SCATAAAGG | TCAATGCAATG | TGGAGAAATG | CTAATCAGCA | 1680 |
| | AAAACAAGAT | GGCAATGGG | GGTCATGGAC | TAAATTTGGC | TCCGTGTCTC | GGCATGTGG | 1740 |
| | AACTGGTGT | CGTTTCAGAA | CACGCCAGTG | CAATAATCCC | ATGCCATCA | ATGGTGGTCA | 1800 |
| | GGATGTCTT | GGTGTAAAT | TTGAGTACCA | SCTTTGTAAAC | ACAGAGAAT | GCCAAAACA | 1860 |
| 25 | CTTTGAGGAC | TTGAGAGCAC | AGCAGTGTCA | GCAGCGAAAC | TCCCACTTGG | AATACCAGAA | 1920 |
| | TACCAACAC | CACCTGGTTC | CATATGAACA | TCCGTACCCC | AAGAAAAGAT | GCCACCTTTA | 1980 |
| | CTGTGACTCC | AAGAGACTG | GAGATGTTGC | TTACATGAAA | CAACTGGTGC | ATGATGGAAC | 2040 |
| | GCATGTTCT | TACAAGATC | CATATAGCAT | ATGTGTGCGA | GGAGAGTGTG | TGAAAGTGGG | 2100 |
| | CTGTGATAAA | GAATTTGGT | CTAATAAGGT | TGAGGATAAG | TGTGGTGTCT | GTGGAGGAGA | 2160 |
| 30 | TAATTOCCAC | TGCCAAACCG | TGAAGGGGAC | ATTTACCAGA | ACTCCACGGA | AGCTTGGGTA | 2220 |
| | CCTTAAGATG | TTTGATATAC | CCCTTGGGGC | TAGATATGTG | TTAATCCAG | AAGACGAGGC | 2280 |
| | TTCTCTCAT | ATCTTTGCTA | TTAAGAACCA | GGCTACAGGC | CATTATATT | TAAATGGCAA | 2340 |
| | AGGGGAGGAA | GGCAAGTGC | GGACCTTCAT | AGATCTTGGT | GTGGAGTGGG | ATTATAACAT | 2400 |
| | TGAAGATGAC | ATTGAAGTTC | TTACACCCGA | TGGACCTTTA | CATGATCCTG | TTATTGTCTT | 2460 |
| 35 | GATATACCT | CAAGAAAATG | ATACCCGCTC | TAGCCTGACA | TATAAGTACA | TCATCCATGA | 2520 |
| | AGACTCTGTA | CCTACAAATCA | ACAGCAACAA | TGTCATCCAG | GAAGAAATAG | ATACCTTTGA | 2580 |
| | GTGGGCTTTG | AAGAGCTGGT | CTCAGTGTTC | CAAACTCTGT | GGTGGAGGTT | TCCAGTACAC | 2640 |
| | TAAATATGGA | TGCCGTAGGA | AAAGTGATAA | TAAATGGTTC | CATCGCAGCT | TCTGTGAGGC | 2700 |
| | CAACAAAAG | CCGAACCTTA | TTAGACGAAT | GTGCAATATT | CAAGAGTGTG | CATCCCAT | 2760 |
| 40 | CTGGGTAGCA | GAAGAAATGG | AACACTGCAC | CAAACTCTGT | GGAGTCTCTG | GCTATCAGCT | 2820 |
| | TCCGACTGTA | CGCTGCCCTC | AGCCACTCCT | TGATGTCACC | AACCGCTCTG | TGCACAGCAA | 2880 |
| | ATACTGCGAT | GGTGACCTTC | CCGAGAGCCG | CCGGCCCTGT | AACAGAGTGC | CCTGCCCTGC | 2940 |
| | ACAGTGGAAA | ACAGGACCTT | GGAGTGAGTG | TTCACTGACC | TGCGGTGAAG | GAACGGAGGT | 3000 |
| | GAGGAGGATC | CTCTGACGGG | CTGGGACCA | CTGTGATGGT | GAAAAGCCTG | AGTCCGTCTG | 3060 |
| 45 | AGCCTGTCAA | CTGCCCTCCT | GTAATGATGA | ACCATGTTTG | GGAGACAAGT | CCATATCTCTG | 3120 |
| | TCAATTCGAA | GGTTTGGCAC | GATACCTGCTC | CATACCAAGT | TATAACAAGT | TATGTTGTGA | 3180 |
| | GTCTGTCAGC | AAGCGCAGTA | GCACCTGCCC | ACCAACATAC | CTTCTAGAAG | CTGCTGAAAC | 3240 |
| | TCAATGATAT | GTCTCTCTTA | ACCTTAGTGA | CCTCCCTAGA | TCTCTAGTGA | TGCCCTACATC | 3300 |
| | TTTGGTTCCT | TATCTTCTAG | AGAACCTTGC | AARGAAGATG | TCCTTGTAGTA | GCATCTCTCT | 3360 |
| 50 | AGTGGGAGGT | CCAAATGCTAT | ATGCTGCTTT | CAGGCCAAAC | AGTAAACCTG | ATGGTGTCTAA | 3420 |
| | TTTTAGGCTAG | AGGAGTGTCT | AGCAAGCAGG | AGTAAGACT | GTGAGACTGG | TCACCGTACC | 3480 |
| | ATCCCTCCCA | CCACCAAGA | GGGTCCACCT | CAGTTCAGCT | TCACAAATGG | CTGCTGCTTC | 3540 |
| | CTTCTTTGCA | GGCAGTGAAT | CAATAGGTGC | TTCTTCTCAG | GCAAGAACCT | CAAGAGAAAG | 3600 |
| | TGGAAGATC | ATTGACACAA | GACGTCCGAC | AAGATCATCC | ACCTTAGAAA | GATGAGAAAG | 3660 |
| 55 | TGAACCAAAA | AGGCTAGAAA | CCAGAGGAAA | ACCTTGACAA | CCTCTCTCTT | CCCATGGTGC | 3720 |
| | ATATGCTGTG | TTAAAGTGGG | AATCTCTATA | GATGTCAGC | TCAATTTATC | TGTAATTTGA | 3780 |
| | AGAACAGAAA | GTGCTGGCTC | ACTTTCTAGT | TGCTTCTATC | CTCTTTTGT | CTGCTCATTA | 3840 |
| | CTCATTTACC | AGATTCATTT | GGAGAGAAATC | ACCAAGATT | ATTACAAAAG | AAAAATATGT | 3900 |
| | TGCTAAGAT | GTGTTGGTGC | CTCTCTGAAG | CAGAAAAGGG | ACTGGAACCA | ATTGTGCTAA | 3960 |
| 60 | TCAGCTGACT | TTTTGTTTGT | TTTAGAAAAG | TTACACTAAA | AATTAAGAG | AGATACCAAT | 4020 |
| | GGTTTACACT | TTAACAGGAA | ATTTTGGATA | TGGAACAAAG | AATTCCTAGA | CTGTATTTCC | 4080 |
| | TATTTATCTA | TATTAGAAAT | ATTGTATGAG | CAAAATTTGCA | GCTGTTGTGT | AAATACTGTA | 4140 |
| | TATTGCAAAA | ATCAGTATTA | TTTTAAGAGA | TGTGTTCTCA | AATGATTTGT | TACTATATTA | 4200 |
| | CATTTCTGGA | GTGTTCTAGT | GCTGTGCTGT | GAGTATGCTC | TTGTTTGACA | TTCTATAGGT | 4260 |
| 65 | TAATTTTCAA | AGCAGAGTAT | TACAAAAGAG | AAGTTAGAAT | TACAGCTACT | GACAAATATA | 4320 |
| | AGGGTTTTGT | TGAATCAACA | ATGTGATACG | TAAATATAG | AAAAAGAAA | GAAACACAAA | 4380 |
| | AGCTATAGAT | ATACAGATAT | CAGCTTACCT | ATTGCTTCT | ATACTTATAA | TTTAAAGGAT | 4440 |
| | TGGTGTCTTA | GTACACTTGT | GGTCAACGGG | ATCAACGAAT | AGTAAATAAT | GAACTCGTGC | 4500 |
| | AAGACAAAAC | TGAACCCCTC | TTTCCAGGAC | CTCAGTAGGC | ACCGTTGAGG | TGTCTTTTGT | 4560 |
| 70 | TTTTGTGTGT | GTGTGTTCTT | TTTTAATTTT | CGCATTTGTTG | ACAGATACAA | ACAGTTATAC | 4620 |
| | TCAATGTACT | GTAAATATCT | CAAAGGAAAA | AGTTTGGGGA | TAACTTATTT | GTATGTTGGT | 4680 |
| | AGCTGAGAAA | AATATCATCA | GTCTAGAAAT | GATATTTGAG | TATAGTAGAG | CTTTGGGGCT | 4740 |
| | TGAAGGAGAG | GTTCAGAAAA | GCATATGTCG | ATGGTTGAGA | TATTTATTTT | CCATATGGGT | 4800 |
| | CATGTTCTAA | GTTTCAACAC | CACATGCAAT | CTGACTGCAA | TAAATGTGCTA | ATAATTTATG | 4860 |
| 75 | TCAGTAGTCA | CCTTGTCTAC | AGCAAGGCCA | GAAATGCTCT | CTCCAGGGAG | TAGATGTAAA | 4920 |
| | GTACTTGTAC | ATAGAAATCA | GAACTGAAGA | TATTTATTAA | AAGTGTGATT | TTTTTCTTGT | 4980 |
| | ATAGTATTTT | TATGACTATA | ATATTTACAC | TAAATCAAT | TACATATTTT | GGTAAACTAG | 5040 |
| | AGAGACATAA | TTAGAGATGC | ATGCTTTGTT | CTGTGCTAG | AGACCTTTAA | GCAAACTACT | 5100 |
| | ACAGCAACT | CAAAGCTTAA | AACCTGAACAA | ATTTGATGTT | ATGCAACAT | CTTGCATTTT | 5160 |
| 80 | TAGTAGTTGA | TATTAAGTTG | ATGACTTGT | TCCCTTCAAG | GAAACATTA | ATTGTATGGA | 5220 |
| | CTCAGCTAGC | TGTTCAATGA | AATTTGTGAT | TAGAAACATT | TTTTAAAGTT | TTTGAAGAG | 5280 |
| | ATAAGTGCAT | CATGAATTAC | ATGTACATGA | GAGGAGATAG | TGATATGATC | ATAATGATTT | 5340 |
| | TGAGGTCAAT | ACCTGAGCTG | TCTAATAATA | TATTATACAA | ACTAAATATG | AGATGAATTA | 5400 |
| | ACCTCTCAAA | GCACAGAAATG | TGCAAGAACT | TTTGCATTTT | AATGTTTGA | AACCAACAGC | 5460 |

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 TTAACACTATT GACTCTATAC CTCTAAAGAA TTGCTGCTAC TTTGTGCAAG AACTTTGAAG 5520
 GTCAAAATAG GCAAAATCCA GATAGTAAAG CAATCCCTAA GCCTTAAGTC TTTTITTTTT 5580
 CCTAAAAATT CCCATAGAAAT AAAATTCTCT CTAGTTTACT TGTGTGTGCA TACATCTCAT 5640
 CCAAGAGGGA AGATAAGAT GGTACACAAA ACAGTTTCCA TAAAGATGTA CATATTTCAT 5700
 ATACTTCTGA CTTTGGGCT TCTTTTCTA CTAAGCTAAA AATTCCTTT TATCAAAGTG 5760
 TACACTACTG ATGCTGTTTG TTGTACTGAG AGCAGCTACC AATAAAATG TTAACAAAAT 5820
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10 Seq ID NO: 528 Protein sequence
 Protein Accession #: XP_036683

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 LSASHKKRSA RDVSNPEQL FENITAFGKD FHLRLKENTD LVAPGAVVEM HETSLVPGNI 120
 TDPINNHQPG SATYRIKITE PLQTNCAVVG DIVDIPGTSV AINCDGLAG MIKSDNEEYF 180
 IEPLEKRGQY EREKGRHVV YKRSAVEQAP IDMSKDFEYR ESDLEGLDDL GTVYGNIHQQ 240
 LNETMRKRHH AGENDYNIEV LIGVDDSVVR FHGKEHVQNY LITLNNIVNE TYHDES LGVH 300
 20 INVVLVRMIM LGYAKSISLI ERGNPSRSL E NVCRWASQQQ RSDLNHSEHH DHAIFLTRQD 360
 FGPAGMQGYA FVTGMCRFVR SCTLNHEDGF SSAFVVAHET GHVLGMEHDG QGNRCODETA 420
 MGSVMALIVQ AAFERYHWSR CSQQLKRYI HSYDCLLDDP FDHDMFKLPE LPGAINYSMDE 480
 QCRDFGFGY KCTAFPTFD PCKQLWCSPH DNPYFCRTKK GPPLDGTBCA AGKWCYKGHG 540
 MWKIANQQKQ DGNWGSWTKF GSCSRCTCGTG VRPRTQCNN PMPINGGQDC PGVNFYQLC 600
 25 NTECQKHFE DFRAQQCQQR NSEFEYQNTK HNNLPYEFEP PKKRCILYQC SKETGADVAYM 660
 RQLVHDGTHC SYNDPYSICV RGEVVKVGD KEIGSNKVED KCGVCGGDNH ECRTVKGTFT 720
 RTPRLKLYLK MFDIPPGARH VLIQDEASPT HILAIKQAT GHYILNGKGE BAKSRTFTDL 780
 GVENDYNIED DIESLHIDGP LHDPIVLII PQENDTRSSL TYKYIIEHDS VPTINSNNVI 840
 QBEIDTFEWA LKSWSCSKPK CGGGFYQTKY GCRKSKDNKM VHRSFCEANK KFKPIRRMCN 900
 IQECTHPLWV AEWSECTKT CGSSGYQLRT VRCLOPLLDG TNRSVHSKYC MGDREPSRRP 960
 30 CNRVCPAQW KTFPWSCECV TCEBTEVRQ VLCRAGDECD GEKPESEVRAC QLPCCNDEPC 1020
 LGDKEIFCQM EVLARYCSIP GYNKLCCEBC SKRSTLPPP YLLEAAETHD DIVSNPSDL 1080
 RSLVMPSTLV PYSETPAKK MSLSSISVVG GPNAYAFRP NSKPDGANLR QREAAQAGSK 1140
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 STLER

35 Seq ID NO: 529 DNA sequence
 Nucleic Acid Accession #: NM_002774
 Coding sequence: 246..980

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 45 GCTGGCTGCG TCTCTCTCTG GGACACAGAG GTCGGCAGGC AGCACACAGA GGGACCTAAG 180
 GGCAGCTGTT CCTTCCCGCG ACTCAAGAAAT CCCCAGGAGG CCGGAGGCGT GCAGCAGGAG 240
 CGGCCATGAA GAAGCTGATG GTGTGTCTGA GTCTGATTGC TGACGCTTGG GCAGAGGAGC 300
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 TCTACACCTC GGGCCACTTG CTCTGTGGTG GGGTCTTAT CCATCCACTG TGGGTCTCTC 420
 50 CAGCTGCCCA GGTCAAAAAG CCGAATCTTC AGGTCTTCCT GGGGAAGCAT AACCTTCGCG 480
 AAAGGGAGAG TTCCAGAGAG CAGAGTCTCG TTGTCCGGGC TGTGATCCAC CTGACTATGT 540
 ATGCTGCGAG CCAATGACAG GACATCTATG TGTTCGCGCT GGCACGCCA GCCAACTCT 600
 CTGAATCAT CCAGCCCTCT CCCTGAGAGA GGGACTGCTC AGCCAAACAC ACCAGCTGCC 660
 ACATCTCTGG CTGGGGCAAG ACAGCAGATG GTGATTTCOC TGACACCATC CAGTGTGCTC 720
 55 ACATCAACTG GGTGTCCCGT GAGGAGTGTG AGCATGCCCA CCTGGGCCAG ATCACACAGA 780
 ACATGTTGTG TGCTGGGGAT GAGAAGTACG GGAAGGATTC CTGCCAGGGT GATTCTGGGG 840
 GTCGCTGCTG ATGTGAGAAC CACTCCGAG GCCTGTGTTC ATGGGGTAAC ATCCCTGTG 900
 GATCAAGGA GAAGCCAGGA GTCTACACCA AGGTCTGCG ATACACGAAC TGGATCCAA 960
 60 AAACCATTC AAGCAAGTGA CCTGACATG TGACATCTAC CTCCGACCT ACCACCCAC 1020
 TGGCTGGTTC CAGAACGCT CTCACTAGA CCTTGCCTCC CCTCTCTCTC TGCCAGCTC 1080
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 CAGCTCCATC CTTCGATCAC TGGGAGGAC GTGATGAGTG AGGACTTGGG TCTCGGTCT 1200
 TACCCOCACC ACTAAGAGAA TACAGGAAA TCCCTCTAG GCATCTCTCT TCCCAACCC 1260
 TTCCACAGT TGTATTTCTT CCTGCAGAGG CCCAGCCACG TGTCTGGAAT CCGAGCTCCG 1320
 65 CTGCTTACG TCGGTGTGCC CTTGGGATGT ACCTTCTCTC ACTGCAGATT TCTCACCTGT 1380
 AAGATBAAGA TAAGGATGAT ACAGTCTCCA TCAGGCAGTG GCTGTGGAA AGATTTAAGA 1440
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 TATTTT

70 Seq ID NO: 530 Protein sequence
 Protein Accession #: NP_002765

1 11 21 31 41 51
 75 MKKLMVVLISL IAAANABEQN KLVEGGPCDK TSHPYQAALY TSGHLLCGGV LIHPLWVLT 60
 AHCKPMLQV FLGKHNLRQ ESSQEQSSVV RAVIHEDYDA AHDQDQIMLL RLARPALKSE 120
 LIQPLPLERD CBANITSCHI LGNGKTADGD FPDITQCAVI HLVSRECEH AYPQITQNM 180
 LCAGDEKYGK DSCQGDSSGP LVCCGDLRLGL VSWGNIFCGS KEKPGVYTNV CRYTNWIKT 240
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80 Seq ID NO: 531 DNA sequence
 Nucleic Acid Accession #: NM_012152
 Coding sequence: 43..1104

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| CTTCTTTAA | TTTCTTTCTA | GGATGTTTAC | TTCTTCTCCA | CAATGAATGA | GTGTCACTAT | 60 |
| GACAAGCACA | TGGACTTTTT | TTATAATAGG | AGCAACACTG | ATAGTGTGGA | TGACTGGACA | 120 |
| GGAAACAAGC | TTTGTATTGT | TTTGTGTGTT | GGGACGTTTT | TCIGCCTGTT | TATTTTTTTT | 180 |
| TCTAATCTCT | TGTCATCGC | GGCAGTGATC | AAAAACAGAA | AATTTCTATT | CCCCCTCTAC | 240 |
| TACCTGTGG | CTAATTAGC | TGCTGCCGAT | TTCTTGGCTG | GAATTGCTTA | TGTATTCTCT | 300 |
| ATGTTTAAAC | CAGGCCACGT | TTCAAAAAC | TGACTGTCA | ACCGCTGGTT | TCTCCGTGAG | 360 |
| GGGCTTCTGG | ACAGTAGCTT | GACTGCTTCC | CTCACCAACT | TGCTGGTTAT | CGCCGTGGAG | 420 |
| AGGCACATGT | CAATCATGAG | GATGCGGGTC | CATAGCAACC | TGACCAAAAA | GAGGGTGACA | 480 |
| CTGCTCATTT | TGCTTGTCTG | GGCCATCGCC | ATTTTATG | GGCGGGTCCC | CACACTGGGC | 540 |
| TGGAATTGCC | TCTGCAACAT | CTCTGCCCTG | TCCTCCCTGG | CCCCCATTTA | CAGCAGGAGT | 600 |
| TACCTTGT | TCTGGACAGT | GTCCAACCTC | ATGGCCTTCC | TCATCATGGT | TGTGGGTGAC | 660 |
| CTGCGGATCT | ACGTGTACGT | CAAGAGGAAA | ACCAACGTCT | TGCTCCGCA | TACAAGTGGG | 720 |
| TCCATCAGCC | GGCGGAGGAC | ACCCATGAAG | CTAATGAAGA | CGGTGATGAC | TGCTTAGGG | 780 |
| GGCTTGTGG | TATGCTGGAC | CCCGGGCTTG | GTGGTCTGTC | TCCCTGACGG | CCTGAACTGC | 840 |
| AGGCAGTGTG | GGCTGACGCA | TGTGAAAAGG | TGCTTCTGTC | TGCTGGCGCT | GCTCAACTCC | 900 |
| GTGCTGAACC | CCATCATCTA | CTCCTACAAG | GACGAGGACA | TGTATGGCAC | CATGAAGAAG | 960 |
| ATGATCTGCT | GCTTCTCTCA | GGAGAACCCA | GAGAGGGGTC | CCTCTGCGAT | CCCCCCACA | 1020 |
| GTCTCTAGCA | GGAGTGACAC | AGGCAGCCAG | TACATAGAGG | ATAGTATTAG | CCAAGGTGCA | 1080 |
| GTCTGCAATA | AAAGCACTTC | CTAAACTCTG | GATGCCCTCT | GGCCACCCA | GGTGATGACT | 1140 |
| GTCTTAGG | | | | | | |

Seq ID NO: 532 Protein sequence
 Protein Accession #: NP_036284

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| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
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| FEFFPPYLLA | NLAADFFAG | IAVFLMENT | GPVSKILIVN | RWFLRQQLLD | SSLTASLTNL | 120 |
| LVLAVVERMS | IMNRVBSNL | TKRVTLLIL | LVWAIAPMG | AVPTLGNCL | CNISACSSLA | 180 |
| PTYSRSLVF | WTVSNLMAFL | DMVVYLRIY | VYVRKRTNVL | SPHTSGSISR | RRTFMKLMKT | 240 |
| VMTVLGAFVV | CTNPLVLVLL | LDGLNCRQCG | QVEVKKRWFL | LALNLSVNP | IISYKDEDM | 300 |
| YGTMKMNIC | FSQENPERRR | SRIPSTVLSR | SDTGSQYIED | SISQGAVCNK | STS | |

Seq ID NO: 533 DNA sequence
 Nucleic Acid Accession #: NM_002821
 Coding sequence: 150..3362

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| 1 | 11 | 21 | 31 | 41 | 51 | |
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| GGCTCCCGGT | GGCTCCGCTC | CGCTGCGCCG | CGCGGAGCA | GTCTGCGGCC | GGCGGTGCGC | 120 |
| CCTCAGCTCC | TTTTCTCTAG | CCCGCCCGCA | TGGGAGCTGC | GGCGGGATCC | CCGCGCAGAC | 180 |
| CCCGCCGGTT | GGCTCTGCTC | AGCGTCTCTG | TGCTGCGCT | GCTGGCGGGT | ACCCAGACAG | 240 |
| CCATTGTCTT | CATCAAGCAG | CGTCTCTCCC | AGGATGCACT | GCAGGGGGCG | CGGGCGCTGC | 300 |
| TTCTCTGTGA | GGTTGAGGCT | CCGGGCGCCG | TACATGTGTA | CTGGCTGCTC | GATGGGGCCG | 360 |
| CTGTCCAGGA | CACGAGCGCG | CGTTTCGCC | AGGGCAGCAG | CCTGAGCTTT | GCAGCTGTGG | 420 |
| ACCGGCTGCA | GGACTCTGGC | ACCTTCCAGT | GTGTGGCTCG | GGATGATGTC | ACTGGAGAG | 480 |
| AAGCCCGCAG | TGCCAAGCCG | TCCTTCAACA | TCAAATGGAT | TGAGGCAGGT | CGTGTGTTCC | 540 |
| TGAAGCATCC | AGCCTCGGAA | GCTGAGATCC | AGCCACAGAC | CCAGGTACCA | CTTCGTGTC | 600 |
| ACATTGATGG | GCACCTCCGG | CCCACCTAOC | AATGGTTCOG | AGATGGGACC | CCCCTTTCTG | 660 |
| ATGGTCAGAG | CAACCAACAC | GTCAGCAGCA | AGGAGCGGAA | CCTGACGCTC | CGGCCAGCTG | 720 |
| GTCTGAGCA | TAGTGGGCTG | TATTCCTGCT | GCGCCACAG | TGCTTTTGGC | CAGGCTTGCA | 780 |
| GCAGCCAGAA | CTTCACTTGG | AGCATTTGCTG | ATGAAGGCTT | TGCCAGGGTG | GTGCTGGCAC | 840 |
| CCCAGGACGT | GGTAGTAGCG | AGGTATGAGG | AGGCCATGTT | CCATTGCCAG | TTCTCAGCCC | 900 |
| AGCCACCCCC | GGGCTCTGAG | TGGCTCTTTG | AGGATGAGAC | TCCCATCACT | AACCGCAGTC | 960 |
| GGCCCCCAAC | CCTCCGCAAG | GCCACAGTGT | TTGCCAAGCG | GTCTCTGCTG | CTGACCCAGG | 1020 |
| TCCGGGCCAG | CAATGAGGAG | ATCTACCGCT | GCATTGGCCA | GGGGCAGAGG | GGCCACCCCA | 1080 |
| TCATCTGGA | AGCCACACTT | CACCTAGCAG | AGATTGAAGA | CATGCCGCTA | TTTGAGCCAC | 1140 |
| GGGTGTTTAC | AGCTGGCAGC | GAGGAGCGTG | TGACCTGCTC | TCCCCCAGG | GGTCTGCCAG | 1200 |
| AGCCACAGGT | TGGTGGGGAG | CACGCGGGAG | TCCGCTCTCC | CACCCAGGCG | AGGGCTTACC | 1260 |
| AGAAAGGCCA | CGAGCTGGTG | TTGGCCAAAT | TTGCTGAAAG | TGATGCTGGT | GTCTACACCT | 1320 |
| GCCACGCGCG | CAACCTGGCT | GCTCAGCGGA | GACAGGATGT | CAACATCACT | GTGGCCACTG | 1380 |
| TGCCCTCTCG | CTGAAGAAGG | CCCCAAGACA | GCCAGCTGGA | GGAGGGCAAA | CCCGGCTACT | 1440 |
| TGGATTGCTC | GACCCAGGCC | ACACCAAAAC | CTACAGTTGT | CTGGTACAGA | AACCAGATGC | 1500 |
| TCATCTCAGA | GGACTCAOGG | TTGAGGTTCT | TCAAGATAGG | GACCTTGCAG | ATCAACAGCG | 1560 |
| TGGAGGTGTA | TGATGGGACA | TGGTACCCTT | GTATGAGCAG | CACCCAGGCC | GGCAGCATCG | 1620 |
| AGGCGCAGGC | CGGTGTCCAA | GTGCTGGAAA | AGCTCAAGTT | CACACCAACA | CCCCAGCCAC | 1680 |
| AGCAGTGCAT | GGAGTTTGAC | AAGGAGGCCA | CGGTGCCCTG | TTGAGCCACA | GGCCGAGAGA | 1740 |
| AGCCCACTAT | TAAGTGGGAA | CGGGCAGATG | GGAGCAGCCT | CCCAGAGTGG | GTGACAGACA | 1800 |
| AGCTGGGGAC | CCTGCATTTT | GGCCGGGTGA | CTGAGATGGA | CGCTGGCAAC | TACACTTGCA | 1860 |
| TTGCTCCCAA | CGGGCCGCGAG | GGCCAGATTC | GTCGCCATGT | CCAGCTCACT | GTGGCAGTTT | 1920 |
| TTATCACTTT | CAAGATGGAA | CCAGAGCGTA | CGACTGTGTA | CCAGGGCCAC | ACAGCCCTAC | 1980 |
| TGCACTGCGA | GGCCCGGGGG | GACCCCAAGC | CGCTGATTCA | GTGAAAGGCG | AAGGACCGCA | 2040 |
| TCCTGGACCC | CACCAAGCTG | GGAACCCAGG | TGCACATCTT | CCAGAAATGGC | TCCCTGGTGA | 2100 |
| TCCATGACGT | GGCCCTCTGAG | GACTCAGGCC | GCTACACCTG | CATTGCGAGG | AACAGCTGCA | 2160 |
| ACATCAAGCA | CACGAGGGCC | CCOCTCTATG | TCGTGACAAA | GCTGTGCGCG | GAGGAGTCGG | 2220 |
| AGGGCCCTGG | GCACCTCTCC | CCCTACAAGA | TGATCCAGAC | CATTGGGTTG | TGGTGGGGTG | 2280 |
| CGCTGTGGC | CTACATCATT | CGCTGTCTGG | GCTCATGTTT | CTACTGCAAG | AAGCGCTGCA | 2340 |
| AAGCCAGCG | GCTGCAGAG | CAGCCCGAGG | GCGAGGAGCC | AGAGATGGAA | TGCCCTCAACG | 2400 |
| GAGGGCTTTT | GCAGAAACGG | CAGCCCTCAG | CAGAGATCCA | AGAAGAAGTG | GCTTGTGACCA | 2460 |
| GCTTGGGCTC | CGGCCCGCGG | GCCACCAACA | AACGCCACAG | CACAGTGTAT | AAGATGCACT | 2520 |
| TCCACGCTGC | TAGCCCTCAG | CCCATCACCA | CGCTGGGGAA | GAGTGAGTTT | GGGGAGGGTG | 2580 |
| TCCTGGCAAA | GGCTCAGGGC | TTGGAGGAGG | GAGTGGCAGA | GACCTTGTA | CTTGTGAAGA | 2640 |

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GCCTGCAGAC GAAGGATGAG CAGCAGCAGC TGGACTTCCG GAGGGAGTTG GAGATGTTTG 2700
GGAGAGCTGAA CCACGCCAAC GTGGTGCBCG TCCCTGGGGCT GTGCCGGGAG GCTGAGCCCC 2760
ACTACATGGT GCTGGAATAT GTGGATCTGG GAGACCTCAA GCAGTTCTCTG AGGATTTCCA 2820
AGAGCAAGGA TGAAAAATG AAGTCACAGC CCCTCAGCAC CAAGCAGAAG GTGGCCCTAT 2880
GCACCCAGGT AGCCCTGGGC ATGGAGCACC TGCCAACAA COGCTTTGTG CATAGGAGCT 2940
TGGCTGCGCG TAACCTGCGT GTCACTGCCC AGAGACAAGT GAAGGTGTCT GCCCTGGGCC 3000
TCAGCAAGGA TGTGTACAAC AGTGAGTACT ACCACTTCCG CCAGGCGCTGG GTGCCGCTGC 3060
GCTGGATGTC CCCCAGGGCC ATCTGGAGG GTGACTTCTC TACCAAGTCT GATGTCTGGG 3120
CCTTCGGTGT GCTGATGTGG GAAGTGTTTA CACATGGAGA GATGCCCAT GGTGGGCAGG 3180
CAGATGATGA AGTACTGGCA GATTTCAGG CTGGGAAGGC TAGACTTCCT CAGCCCGAGG 3240
GCTGCCCCCTT CAAACTCTAT CGGCTGATGC AGCGCTGCTG GGCCCTCAGC CCAAGGACCC 3300
GGCCCTCCTT CAGTGAAGAT GCCAGCGCCC TGGGAGACAG CACCGTGGAC AGCAAGCCGT 3360
GAGGAGGGAG CCCCTCAGG ATGGCTTGGG CAGGGCAGGA CATCTCTAGA GGAAGCTCA 3420
CAGCATGATG GCGAAGATCC CTGTCTCTCT GGGCCCTGAG GTGCCCTAGT GCAACAGGCA 3480
TTGCTGAGGT CTGAGCAGGG CCTGGCCCTT CTCTCTCTTC CTCACCTCA TCCTTTGGGA 3540
GGCTGACTTG GACCCAAACT GGGCGACTAG GGCTTTGAGC TGGGCAGTTT CCOCTGCCAC 3600
CTCTCTCTCT ATCAGGACA GTGTGGGTGC CACAGTAAC CCAATTTCT GGCCTTCAAC 3660
TTCTCCCTCT GACCGGGTCC AACTCTGCCA CTCTCTGCC AACTTTGCTT GGGGAGGGCT 3720
AGGCTTGGGA TGAGCTGGGT TTGTGGGGAG TTCTTAAATA TTCTCAAGT CTGGGCACAC 3780
AGGGTTAATG AGTCTCTTGC CCCTGCTGCC ACTTGGGGGT CTAGACCAGG ATTATAGAGG 3840
ACACAGCAAG TGAATCTCTC CCCTCTGCGG CTGTGTCACA CTGACCCAGA CCCACGCTCT 3900
CCCACTCCTT CTCTCTCTT CTCTCTCTTA GTGCTGGCA GATGAAGGAG TTTTTCAGGAG 3960
CTTTTGACAC TATATAAAC GGCCTTTTTC TATGACCCAC GGGCGGCTTT TATATGTAAT 4020
TGCAGCGTGG GGTGGGTGGG CATGCGAGGT AGGCGTGGGC CCTGGAGATG AGGAGGGTGG 4080
GCCATCCTTA CCCCACACTT TTATGTGTGT GCTTTTGTGT TGTGTTGTTT 4140
TGTTTGTGTT TTTACACTCG CTGCTCTCAA TAAATAAGCC TTTTITA

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Seq ID NO: 534 Protein sequence
Protein Accession #: NP_002812

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1 11 21 31 41 51
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VEVYWLDDGA PVQDTERRFA QGSSLSFAAV DRLDQSGTFQ CVARDDVTGE EARSANASFN 120
IKWIRAGPVV LKHPASEAEI QPQTQVTLRC HYDGHPRPTY QWERDGTPLS DGQSNHTVSS 180
KEKNLTLREA GFEHSEGLYSC CAHSAFOQAC SQCNFTLEIA DESPARVULA PQDVVVARYE 240
EAMFHCOFSA QPPPSLQWLF EDETPTNRS RPPHLRRATV FANGSLLLTQ VRPNAGIYR 300
CTGCGQGRGP IILBATLHLA BIRDMPLFEP RVFTAGSEER VTCLPFGKLP EFSVWWEFAG 360
VRLPTGHRVY QRGHELVLAN IASSDAGVYT CHAANLAGOR RQDVNITVAT VPSWLKKPQD 420
SQLBESKPGY LDCLQATPK PTVVHYRNQM LISEDSRFEV FKNGTILRNS VEYDGTWYR 480
CMSSTPAGSI EAQARVQVLE KLFETFPFQP QQCMFDFKEA TVPCSATGRE KPTIKNERAD 540
GSSLPEWVTD NAGTLHFARV TRDDAGNYTC IASEGPOGQI RAHVQLTAVV FITFKVEPER 600
TFVYQHTAL LQCEAQCDPK PLIQWKGKDE ILDETKLGER MHIFQNGSLV IHDVAPRDSG 660
RYTCLAGNSC NIKHTEAPLY VVDKPVFPEE EPGSPPPPYK MIQTIGLSVG AAVAYIIAVL 720
GLMFYCKPXC KAKRLQKQPE GEPEMECLN GGPLQNGQPS AEIQBEVALT SLGSGPAATN 780
KRHSTSDIOM FPRSLQPIIT TLGRSEFGEV FLAKAQGLEB GVAETILVLK SLQTKDEQQQ 840
LDPRRELENE KILNHFANVR LGLCRBAEP HYMVLEYVDL GDLKQFLRIS KSKDEKLKSO 900
PLATKQKVAL CTQVALGMEH LNNRFVHKD LAARNCLVSA QROVVRBALG LSKDVYNSEY 960
YHPRQAWVPL RWSPEALIE GDFSTKSDVH AFGVLMHEVF THGEMPHGGQ ADDEVLADLIQ 1020
AGKARLEQPE GCPSLYRLM QRCWALSPKD RPSFSEIASA LGDSFVDSKP

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Seq ID NO: 535 DNA sequence
Nucleic Acid Accession #: NM_013952
Coding sequence: 161..1357

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1 11 21 31 41 51
TTCAGAGGGA GGAGAGACAC CGGGCCAGG GCACCCCTCC GGGCGGGCGG ACCCAAGCAG 60
TGAGGGCCTG CAGCCGGCCG GCCAGGGCAG CGGCAGGCGC GGCCCGGACC TAAGGAGGAG 120
AGCCCCGAGC CTTCGGCGGG CTGCGAGCGA CTCGCCGGCG ATGCCCTACA ACTCCATCAG 180
ATCTGGCCAT GAGGGGCTGA ACCAGCTGCG AGGGGCTTT GTGAATGCGA GACCTCTGCC 240
GGAAATGCTC CGCCAGCGCA TCGTAGACCT GGCCCAACAG GGTGTAAGGC CCTGGGACAT 300
CTCTCGCCAG CTCCGCTCA GCCATGGCTG CGTCAGCAAG ATCCTTGGCA GGTACTACGA 360
GACTTGGCAGC ATCCGCGCTG GAGTGATAGG GGGCTCCAAG CCCAAGGTGG CCACCCCCAA 420
GGTGGTGGAG AAGATTGGGG ACTACAAACG CCAGAACCCT ACCATGTTTG CTTGGGAGAT 480
CCGAGACCGG CTCTCTGGCT AGGCGCTCTG TGACAATGAC ACTGTGCCCA GTGTGAGCTC 540
CATTAATAGA ATCATCCGGA CCAAGTGCA GCAACCATTC AACCTCCCTA TGGACAGCTG 600
CGTGGCCACC AAGTCCCTGA GTCCCGGACA CAOGCTGATC CCAGCTCAG CTGTAACCTC 660
CCCGAGTCA CCCCAGTGG ATTCCCTGGG TCCACCTAC TCCATCATG GGTCTCTGG 720
CATCCTCAG CTTGGCAGCG ACAAGAGGAA AATGGATGAC AGTGATCAGG ATAGCTGCGG 780
ACTAAGCAIT GACTCAGAGA CGAGCAGCAG CGGACCCCGA AAGCACCTTC GCACGGATGC 840
CTTCAGCCAG CACCACTCG AGCGCTCGA GTGCCCTTT GAGCGGCAGC ACTACCCAGA 900
GGCTTATGCC TCCCCAGCC ACACCAAAGG GAGCAGGGC CTCTACCCGC TGCCTTGCT 960
CAACAGCACC CTGGAAGAG GGAAGGCCAC CCTGACCCCT TCCACACGCG CACTGGGGCG 1020
CAACCTCTCG AACTCACCAG CTAACCCCTT GGTGGCAGCT CCGCTCTTTT GATCTGCGAG 1080
CAGTGTGGCT CCGGGTCCC GOCCTTCAAT GOCCTTCCCC ATGCTGCTC CGTGTACGGG 1140
GAGTTCAGCG CAGTTCAGGG CTTCTCAGGG CGAGAGATGG TGGGGCCAC CTTGCCCGGA 1200
TACCCACCCC ACATCCCCAC CAGCGGACAG GGCAGCTATG CTTCTCTGC CATCGCAGGC 1260
ATGTTGGCAG GAGTGGATA CTCTGGCAAT GCCTATGGCC ACACCCCTTA CTCTCTTAC 1320
AGCGAGGCGT GGGGCTTCCC CAACTCCAGC TTGCTGAGTT CCCCATATTA TTACAGTTCC 1380
ACATCAGGCG GAGTGCACC GCCCADCAC TCAACGSCCT TTGAOCATCT GTAGTGGCCA 1440
TGGGACAGT G

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Seq ID NO: 536 Protein sequence
Protein Accession #: NP_039246

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MPHNSIRSGH GGLNQLGGAF VNGRPLPEVV RQRIVDLAHQ GVRPCDISRQ LRVSHGCVSK 60
ILGRYYETG9 IRPGVIGGSK PKVATPKVVE KIGDYKRQNP TMFAWEIRDR LLAEQVCDND 120
TVPSVSSINR IIRTKVQPPF NLFMDSCVAT KSLSPGHTLI PSSAVTPES PQSDSLGSTY 180
SINGLLGIAQ PGSDKRMDD SDQDSCRLSI DSQSSSSGPR KHLRTDAFSQ HHLEPLECPF 240
10 ERQHYPEAYA SPSTHKGEGG LYPLPLINST LDDGKATLTP SNTPLGRNLS THQTYPVVAA 300
PFFWICSKSA PGSRSPMPFP MLFPCTGSSR ARPSSQGERW NGPRCPDTHP TSPPADRAAM 360
PFLPSQAWWQ EVNITLWEMA TPPTPTARP GASPTFAC

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Seq ID NO: 537 DNA sequence
Nucleic Acid Accession #: NM_003466.1
Coding sequence: 11..1363

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GAATTCGGCG ATGCTCTACA ACTCCATCAG ATCTGGCCAT GGAGGGCTGA ACCAGCTGGG 60
AGGGGCGCTTT GTGAATGGCA GACCTCTGCC GGAAGTGGTC CGCCAGCGCA TCGTAGACCT 120
GGCCACCAAG GGTPTAAGGC CTTGCGACAT CTCTCGCCAG CTCGCGTCA GCCATGGTTG 180
CGTCAGCAAG ATCCTTGSCA GGTACTACGA GACTGCGCAG ATCCGCGCTG GAGTGTATAG 240
GGGCTCCAGG CCCAAGGTGG CCACCCGCCA GGTGGTGGAG AAGATTGGG ACTACAAAG 300
25 CAGAAACCTT ACCATGTTT CTTGGGAGAT CGAGACCGG CTCCTGGCTG AGGGCGTCTG 360
TGACATATGAC ACTGTGCCCA GTGTCACTC CATTAATAGA ATCATCCGGA CCAAGATGCA 420
GCAACCATTC AACCTCCCTA TGGACAGCTG CTGGCCACC AAGTCCCTGA GTCCCGGACA 480
CAGCTGATC CCCAGCTCAG CTGTAATCC CCGGAGTCA CCCAGTCCG ATTCCCTGGG 540
CTCCACCTAC TCCATCAATG GGTCTCTGGG CATCGCTCAG CTTGGCAGCG ACAAGAGGAA 600
AATGGATGAC AGTGATCAGG ATAGCTGCG ACTAAGCATT GACTCACAGA GCAGCAGCAG 660
CGSACCCCGA AAGCACTTTC GCACGGATGC CTTACGCCAG CACCACCTCG AGCGCTCGA 720
GTGCCATTG GAGCGGCGAG ACTACCCAGA GGCTATGCC TCCCCAGCC ACACCAAAGG 780
CAGCAGGGGC CTCTACCCGC TGCCCTTGCT CACAGCACC CTGGACGACG GGAAGGCCAC 840
CTGACCCCTT TCCAAACGCG CACTGGGGGG CAACCTCTCG ACTCACAGA CCTACCCCT 900
35 GGTGGCAGAT CTTACTACAC CTTTCGCCAT AAGCAGGAA ACCCCGAGG TGTCCAGTTC 960
TAGCTCCACC CCTTCTCTT TATCTAGCTC GGCCTTTTG GATCTGCAGC AAGTGGCTC 1020
CGGGTCCCG CCTTCCCA TGCTGCTCC GTGTACGGGC AGTTCAGGG 1080
CAGGGCCCTC CTCTCAGGGC GAGAGATGGT GGGGCCACG CTGCCCGAT ACCCACCCA 1140
CHTCCCAAC AGCGGACAGG GCAGCTATGC CTCTCTGCC ATCGCAGCA TGGTGGCAG 1200
40 AAGTGAATAC TCTGGCAATG CCTATGGCCA CACCCCTAC TCCTCTTACA GCGAGGCTG 1260
GCTCTTCCC AACTCCAGCT TGCTGAGTTC CCCATATTAT TACAGTTCCA CATCAAGGCC 1320
GAGTGCAACG CCAACCACTG CCACGGCTT TGACCATCTG TAGTTGAAGC TT

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Seq ID NO: 538 Protein sequence
Protein Accession #: NP_003457

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50 1      11      21      31      41      51
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MPHNSIRSGH GGLNQLGGAF VNGRPLPEVV RQRIVDLAHQ GVRPCDISRQ LRVSEGCVSK 60
ILGRYYETG9 IRPGVIGGSK PKVATPKVVE KIGDYKRQNP TMFAWEIRDR LLAEQVCDND 120
TVPSVSSINR IIRTKVQPPF NLFMDSCVAT KSLSPGHTLI PSSAVTPES PQSDSLGSTY 180
SIXLLGLIAQ PGSDKRMDD SDQDSCRLSI DSQSSSSGPR KHLRTDAFSQ HHLEPLECPF 240
ERQHYPEAYA SPSTHKGEGG LYPLPLINST LDDGKATLTP SNTPLGRNLS THQTYPVVAD 300
55 FHSPFAIKDE TRPVSSSSST PSSLSSSAFL DLQVVGSGVP PNAFEMHAA VYQFTGQAL 360
LSGREMVQPT LGYPPHPT SQGSYASSA IAGMVAGSEY SGNAYGHTPY SBYSEAWRFP 420
NSLLSPFY YSTSPAP PTTATADHL

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Seq ID NO: 539 DNA sequence
Nucleic Acid Accession #: NM_006799
Coding sequence: 19..963

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60 1      11      21      31      41      51
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GCGCGCGGAG AGGAGGCCAT GGGCGCGGCG GGGCGCTGCT TGCTGGCGCT GCTGCTGGCT 60
CGGGCTGGAC TCAGGAAGCC GGAGTCGAG GAGGCGGCGC CTTATCAGG ACCATGCGGC 120
CGACGGTCA TCACGTCGCG CATCGTGGT GGAGAGGACG CCGAACTCGG GCGTTGGCGG 180
TGGCAGGGBA GCGTGCCTT GTGGGATTC CACCTATGCG GAGTGAGCCT GCTCAGCCAC 240
CGCTGGCAG TCACGGCGGC GCACTGCTTT GAAACCTATA GTGACCTTAG TGATCCCTCC 300
GGATGGATGG TCCAGTTTGG CCAGCTGACT TCCATGCCAT CCTCTGAGG CCTGCAGGCC 360
70 TACTACACCC GTTACTTCGT ATCGAATATC TATCTGAGCC CTGCTACCT GGGGAATTCA 420
CCCTATGACA TTGCTTGGT GAAGCTGTCT GCACCTGTCA CTAACACTAA ACACATCCAG 480
CCCATCTGTC TCAGGCGCTC CACATTTGAG TTGAGAACCC GGACAGACTC CTGGGTGACT 540
GGCTGGGGGT ACATCAAGA GATGAGGCA CTGCCATCTC CCAACACCTC CAGGGAAGTT 600
CAGGTCCGCA TCATAACAA CTCTATGTGC AACCACTCT TCCTCAAGTA CAGTTCCGCG 660
75 AAGGACATCT TTGGAGACAT GGTGTGTGCT GGCAATGCC AAGGCGGAA GATGCTGCTG 720
TTCGTGACT CAGGTGAGCC CTGCGCTGT AACAAAGATG GACTGTGGTA TCAGATTGGA 780
GTCTGAGCT GGGGAGTGGG CTGTGGTGG CCAATCGGC CCGGTGTCTA CACCAATATC 840
AGCCACCTCT TTGATGGAT CCAGAAAGCTG ATGCGCCAGA GTGGCATGTC CCAGCCAGAC 900
80 CCCTCTGCT GGTACTCTT TTCTCTCTT CTCTGGCTC TCCACTCTT GGGGCGGCTC 960
TGAGGCTACC TGAGGCCATG CAGCCTGGGG CCACGCCAA GTCAGGCCCT GGTCTCTCTC 1020
TGTCTGTGTT GGTAAATAAC ACATTCAGT TGATGCCTTG CAGGCGATTG TTCAAA

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Seq ID NO: 540 Protein sequence
Protein Accession #: NP_006790

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|-------------|------------|------------|------------|------------|-------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MGARGALLLA | LLARAGLRK | PESQEAAPLS | GPOGRRVITS | RIVGGEDABL | GRWPWQGSRLR | 60 |
| LWDSHVCGVS | LLSHRWALTA | AHCFETYSDL | SDPSGWMVQF | QQLTSMPSFW | SLQAYYTRYF | 120 |
| VSNLYLSPRY | LGNSPYDIAL | VKLSPVTTY | KHIQPICLQA | STFEFENRTD | CMVTGWGVYK | 180 |
| EDEALPSPHT | LQSVQVAIIN | NSMCNHLPLK | YSFRKDIFGD | MVCAGNAQXG | KDACFGDSGG | 240 |
| PLACNKNGLW | YQIGVVSWGV | GCGRENRPV | YTNISHHFEW | IQLKMAQSGM | SQPDPSWELL | 300 |
| FFPILLWALPL | LGPFV | | | | | |

Seq ID NO: 541 DNA sequence
Nucleic Acid Accession #: NM_014344
Coding sequence: 131..1444

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|-------------|------------|-------------|------------|------------|------------|------|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| GCAGCCGCGA | TGGGGCCGAA | GCAGCCGGAAG | CCCCGGAGCC | CACAAACTGC | CGGGCCCGCC | 60 |
| TCGCGCGCGG | GACCCGGGTG | CCTGGGCTCG | GCTTGAAGCG | GCGCGCGCGC | ACCGGCACAG | 120 |
| CCGCGGGAGC | ATGGGAGGA | GGATGCGGGG | CGCGCGCGCC | ACCGCGGGGC | TCTGGCTGCT | 180 |
| GGCGCTGGCG | TGCTGCTGG | CGCTGTGGGG | AGGGCTCCTG | CGCGCGCGGA | CGAGCTGCTC | 240 |
| CGCTCCCGG | CGCCCGGAAG | ACCGACTCCC | ACGGCGCCCG | GCCCGGAGCG | GCGGCCCGCC | 300 |
| GCCCGCGCCT | CGCTTCCCTC | TGCCCGCGCC | CCTGGGCTGG | GACGCGCGCG | GCGGCTCCCT | 360 |
| GAAGAACTTC | CGGGCGCTGC | TCACCTTGGC | GGCGCGCGCG | GACGCGCGCG | CCCGGCAGTC | 420 |
| CCGAGGCGAG | CCGAGCTGGC | ACGTGTGAGC | CAGGCGAGCC | CGCGCGGAGG | AGAGCGCGCG | 480 |
| GGTGACAGGG | GGCGCTTCT | GGAGCGCGCG | CCTGGAGGAG | CAGGTGCCCG | CGGGCTTTTC | 540 |
| GGAGGCCGAG | GCGCGCGGT | GGCTGGAGGC | GGCTCGCGCG | GCCCGGATGG | TGGCCTTGA | 600 |
| GCGCGGGGCT | TGGGGGCGCA | GCTCCAGCCG | ACTGGCGCGT | TTTGGCGAGG | GCACCCGCGC | 660 |
| CTGCGTGGCG | TAGCGCATCA | ACCGCGAGCA | GATTCAAGGC | GAGGCCCTGT | CTTACTATCT | 720 |
| GGCGCGCTCG | CTGGGCTTCC | AGCGCCAGCT | GCGCGCGCTG | GACTGGCTC | GCGTGGAGGC | 780 |
| TGCGGGCGCG | CAGTGCGCG | AGGTGAGGA | GGAGCTGCGC | GCTGCGCACT | GGACCGAGGG | 840 |
| CAGCGTGGTG | AGCTTACAC | GCTGGCTGCC | CAACTCAAG | GAGTGGTGG | TGCCCGCGCC | 900 |
| CTGGCGCTCG | GAGGAGCGGC | GTCTGCGCCC | CCTCGGGGAT | GCGGGGGGTG | AGCTGGCCAA | 960 |
| CCTCAGCCAG | GCGGAGCTGG | TGGACCTAGT | ACAATGGACC | GACTTAATCC | TTTTGACTTA | 1020 |
| CTGACGCGCC | AACCTTCAGC | GGCTCGTAAG | CAACTCTTTC | AGCTGCGAGT | GGGACCCGCG | 1080 |
| CGTCATGAG | CGTGCCACCA | GCAACCTGCA | CCGCGGTCCG | GCGCGGCGCG | TGGTCTTTCT | 1140 |
| GGACCAATAG | GCGGGCTTGG | TGCACGCTA | CCGGGTAGCA | GGCATGTGGG | ACAAGTATAA | 1200 |
| CGAGCGCGTG | TTCAGTCAG | TGTGGTGT | CCGCGAGCGG | ACGCGCGCGC | GCGTCTCGGA | 1260 |
| GCTGACCGCG | GGACGAGAGG | CGCGCGCGCG | GCTGCTGCGC | CTTACCGCGC | GCCACGAGCC | 1320 |
| TGCGTCTCCC | GAGCTGCGCG | CCCTTGAGCA | CCCCACGCTC | CAGCTGCTAC | AGCGCGCGCT | 1380 |
| CGATTCTCTC | GCCAGGACCA | TTTTGCACTG | TAAGGCCAAG | TACGGCGCGC | GGTCTGGGAC | 1440 |
| TGATGTGAC | CGGAGGAGAA | AGAGAGAGAT | CTGGGGCTGG | GGTATGGATG | ATGGGGGAAA | 1500 |
| GGGCGGTGCG | CTCTGCCACT | GTGAGGAGCC | AGCGCGCCAA | CGCCACCCCG | CAAAGGTGTC | 1560 |
| TAAAGACTTC | AGCTTTTCAC | CCACTGCCCC | CTTCTTTTCA | ATCCCAAGCT | GTTCCTTTTC | 1620 |
| AAAGTTCTGG | GAGGAGCAAC | TCACCGAGGC | GAGAGGTGTA | ACATTCTCTC | CAGCCAGCTT | 1680 |
| ATAAAGGATG | TCCTTACTGT | GCCAGCACGG | GGATTGGATC | CGAAGAAACT | GGCTACTGGG | 1740 |
| GTCTGGCCCC | CGAGTGCGCG | TCCTGTGGGG | AGATGCACCC | CATTCTTGGG | CCCCCTCAT | 1800 |
| TCCCTTTCCG | AAAAAGGAAA | ACTTGGGTTT | GAGCGGTGTA | GCTAATTCTG | CAATTTTCTA | 1860 |
| CCAAACAGAG | CGCTGTGTGC | CCCGGAGCAG | GGCTGTGACA | TTGGCTGGTG | GAGGCCCTTC | 1920 |
| CTGTGTTCTC | CCCTTGTTC | AGCGCGCGGA | TGGTGAGATC | ACTGTTCCAA | CGAGGGGGAC | 1980 |
| GGCTCGCGAT | GAGCAAAAGA | CAGCAGGACC | TCCAGACTCT | GGGGAGCCCT | GCAGACCTTG | 2040 |
| ACAAITTTGCC | TGACTCATTC | CTGACCTCTT | GTCAATTTGG | CCTGAGGGCT | ACAAATTCAG | 2100 |
| GGTCACTGT | ATGCACTAAG | TCAAATAATG | AATTTCTTCC | TCCCTCTCCG | AACCGACCRA | 2160 |
| AATTTTGACA | ACGATGATGT | TCACCAGAGG | GAAGAAAAAA | TCAGTTTAT | GCACTTTAT | 2220 |
| TGTTTGTGAT | TTTCAATTTT | TATTAAGAAA | AAATTTTATT | TTACAGAAAT | TACCTTCTCT | 2280 |
| GTATATATGT | GCATAAAGTG | TGGTGTAAT | ATACTAAACA | AACCTATATT | TCATTAAGAG | 2340 |
| GGAGTTTAAA | ATTTAAAAAA | AAAAAAA | | | | |

Seq ID NO: 542 Protein sequence
Protein Accession #: NP_055159

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|------------|------------|------------|------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MGRMRGAAA | TAGLWLLALG | SLALWGLL | PFETELPASR | PPEDRLPRRP | ARSGGPAPAP | 60 |
| RPFLPPFLAW | DARGGSLKTF | RALLTLAAGA | DGPPRQSRSE | PRWHVBARQP | HPKESAAVHG | 120 |
| GVFWERGLEE | QVPPGFSEAR | AAAWLEAARG | ARMVALERGG | CGRSENRLAR | FADGTRACVR | 180 |
| YGINPEQIQG | EALSYLLARL | LGLQRHVPEL | ALARVENRGA | QMAQVQBELR | AAHWTEGSVV | 240 |
| SLTRWLPNLT | DVVVPAPWRS | EDGRLRPLRD | AGGELANLSQ | AELVDLVQNT | DLILFDYLT | 300 |
| NFDRLVSNLF | SLQNDPRVMQ | RATSNLHRGP | GGALVFLDNE | AGLVHGYRVA | GMWDKYNBPL | 360 |
| LQSVCFRER | TARRVLELHR | GQDAARLLR | LYRBHEPRFP | ELAALADPHA | QLLQRRLOFL | 420 |
| AKHLLHCKAK | YGRREGT | | | | | |

Seq ID NO: 543 DNA sequence
Nucleic Acid Accession #: XM_007652.4
Coding sequence: 1..1290

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|------------|------------|------------|------------|-------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| ATGGCCGGCT | CTGGCGCGTG | GAAGCGGCTC | AAATCTATGC | TAAGGAAGGA | TGATGCGCGG | 60 |
| CTGTTTTTAA | ATGACACACG | CGCCTTTGAC | TTCTCGGATG | AGCGCGGGGA | CGAGGGGCTT | 120 |
| TCTCGGTTCA | ACAAACTTCG | AGTTGTGGTG | GCCGATGACG | GTTCCGAAAGC | CCCGGAAGAG | 180 |
| CCGTGTTAAG | GGGCGCACCC | GACCTCCAG | GCGAGCATG | ATTCTTACT | GGACCAAGAC | 240 |
| TTACCTTTGA | CCACACATCA | GCTGAGTTTG | AAGGTGAGCT | CCTGTGACAA | CTGCAGCAAA | 300 |
| CAGAGAGAGA | TACTGAAGCA | GAGAAAGGTG | AAAGCCAGGT | TGACCATTGC | TGCGGTTCTG | 360 |
| TACTTGCTTT | TCATGATTGG | AGAATTGTA | GGTGGATACA | TGCAAAATAG | CCTAGCAATC | 420 |

5 ATGACAGATG CACTTCATAT GTTAACTGAC CTAAGCGCCA TCATACTCAC CCTGCTTGCT 480
 TTGGGGCTAT CATCAAAATC ACCAACCCAA AGATTCACTT TTGGATTTC TCCCTTAGAG 540
 GTTTTGTGAG CTATGATTAG TGTGCTGTTG GTGTATATAC TTATGGGATT CCTCTTATAT 600
 GAAGCTGTGC AAAGAAGTAT CCATATGAAC TATGAATATA ATGGAGATAT AATGCTCATC 660
 ACCGACACTG TTGGAGTTGC AGTTAATGTA ATAAATGGGGT TTCTGTTGAA CCAGTCTGGT 720
 CACCGTCACT CCATATCCCA CTCCCTGCTT TCAAATTCCT CTACCCAGAG TTCTGGGTGT 780
 GAACGTAAAC ATGGGCAGGA TAGCCTGGCA GTGAGAGCTG CATTTGTACA TGCTTTGGGA 840
 GATTTGGTAC AGAGTGTGG TGTGCTAATA GCTGCATACA TCATACGATT CAAGCCAGAA 900
 10 TACAAGATTG CTGATCCCAT CTGTACATAC GTATTTTCAT TACTGTGGC TTTTACAACA 960
 TTTGGAATCA TATGGGATAC AGTAGTTATA ATACTAGAAG GTGTGCCAAG CCATTGGAAT 1020
 GTAGACTATA TCAAGAAAGC CTGTATGAAA ATAGAAGATG TATATTCAAT CGAAGATTTA 1080
 AATATCTGGT CTCTCACTTC AGGAAAATCT ACTGCCATAG TTCACATACA GCTAATTCCT 1140
 GGAAGTTTAT CTAATGGGGA GGAAGTACAG TCCAAAGCAA ACCATTATAT ATTGAACACA 1200
 15 TTTGGCATGT ATAGATGTAC TATTCACTT CAGAGTTACA GGCAAGAAGT GGACAGAACT 1260
 TGTCAAAATT GTCAAGATTC TAGTCCCTGA

Seq ID NO: 544 Protein sequence
 Protein Accession #: XP_007652.1

20 1 11 21 31 41 51
 MAGGSAWKRL KSMRKDDAP LFLNDTSAPD FSDEAGDEGL SRFNKLKRVV ADDGSEAPER 60
 PVNGAHPFLQ ADDDSLDDQD LPLTNSQLSL KVDSCDNCSK QREILKQKRV KARLITAAVL 120
 25 YLLFMIGELV GGYIANSLAI MTDALHMLTD LSAILILLLA LMLSSSKBPTK RPTFGPHRLD 180
 VLSAMISVLL VYILMGFLLY EAVQRTIEMN YEINGDMLGI TAAVGVAVNV IMGFLINQSG 240
 HRSRSHSESLP SNSEPTSGSGC EENHGGQDOLA VRAAFVHALG DLVQSVGVLI AAYIIRFKPE 300
 YKIADPCTCY VFSLLVAFTH FRIINDTVVI ILEGVPSHLN VDYIKSALMK IEDVYSVEDL 360
 NINSLTSGHS TAIVHILQIP GSSSKNEKVQ SKANHLLINT FGMVRCITQL QSVRQEVDR 420
 CANCQ888P

Seq ID NO: 545 DNA sequence
 Nucleic Acid Accession #: AB037765.1
 Coding sequence: 1..2478

35 1 11 21 31 41 51
 ATGTTTTCOG GCTTCAATGT CTTTAGAGTT GGGATCTCIT TTGTCATAAT GTGCATTTT 60
 TACATGCCAA CAGTAAATCT TTTACCAGAA CTGAGTCTCT AGAATATATT TAGTACATTG 120
 40 CAACCAAGAA AAGCCTCTTT AGCTTATTTT TGTCAAGCTG ATTCCCAAG AACATCTGTA 180
 TTTCTTGAAG AACTGAATGA GGCTGTAGA CCTCTGAGG ACTATGGAAT TTCAGTTGCC 240
 AAGGTATATT GTGTCAAGA AGAAATATCA AGATACTGTG GAAAGAGAAA GGATTGTAGT 300
 AAAGCATATT TATTCAAGGG CAACATATTG CTCAGAGAAT TCCCTACTGA CACCTTGT 360
 GATGTGAATG CCATTGTGCG CCATGTCTCT TTTGCTCTCT TTTTAGTGA AGTGAATAT 420
 45 ATTACCAACC TGAAGACCT TCAGAACATA GAAATGCTC TGAAGGAAA AGCAATATT 480
 ATATCTCAT ATGTAAGAGC CATTGGAATA CCAGAGCACA GAGCAGTCAAT GGAAGCCGCT 540
 TTTGTGTATG GAGTACATA CCAATTTGTC TTAACCAAG AAATTGCCCT TTTGGAAAGT 600
 ATTGGCTCTG AGGATGTGGA ATATGCACAT CTCTACTTTT TTTATGTGTA ACTAGTCTTG 660
 GACTTGACCC AGCAATGTAG AAGAACATA ATGGAACAGC CATTGACTAC ACTGAACATT 720
 50 CACCTGTTTA TTAAGCAAT GAAAGCACCT CTGTTGACTG AAGTTGCTGA AGATCCTCAA 780
 CRAATTTCAA CTGTCAACT CTCACTGGGC TTACCACTGG TTTTATGTGT TAGCCACAG 840
 GCTACTTATG AAGCTGATAG AAGAACTGCA GAATGGGTG CTGCGCTCT TCTGGGAAA 900
 GCAGGAGTTC TACTCTTGT AAGGGACTCT TTGGAAGTGA ACATTCCTCA AGATGCTAAT 960
 55 GTGGTCTTCA AAGAGCAGA AGAGGGAGTT CCAGTGGAA TTTTGGTATT ACATGATGTT 1020
 GATTTAATAA TATCTCATGT GGAATAATAT ATGCACATT AGGAATATCA AGAAGATGAA 1080
 GACAAAGACA TGAAGGTCC AGATATAGAT GTTCAGGATG ATGAAGTGGC AGAATCTGTT 1140
 TTCAGAGATA GGAAGAGAAA ATTACCTTTG GAACATACAG TGAACATAAC AGAAGAAACA 1200
 TTTAATGCAG CAGTGTATGG TTCTGACAGC ATAGTACTCT TCTATGCTGG TTGCAAGCA 1260
 GTATCCATGG CATTTTGTGA ATCTATATT GATGTGCGAG TTAACCTGAA AGGCACATCT 1320
 60 ACTATGCTTC TTACTAGAAT AAACGTGCA GATTGGTCTG ATGTATGTAC TAAGCAAAAT 1380
 GTTACTGAAT TTCTATCAT AAAGATGTAC AAGAAAGGCG AGAACCCAGT ATCTTATGCT 1440
 GGAATGTTAG GAACGAGAA TCTCTTAAA TTTATCCAGC TCAACAGGAT TTCATATCCA 1500
 GTGAATATAA CATCGATCCA AGAAGCAGAA GAATATTTAA GTGGGGAATT ATATAAGAC 1560
 CTCATCTTGT ATTCTAGTGT GTCAGTATTG GGACTATTTA GTCCAACCAT GAAACAGCA 1620
 65 AAAGAGATTT TTAGTGAAGC AGGAACATAC CTMAAGGAT ATGTTATCAC TGAATTTAT 1680
 TCTGAAGAG ATGTTTGTCT ACTGTCAACC AAATATGCTG CAAGTCTTCC AGCCTCTGCT 1740
 CTTGCCAGAC ACACGAGAGG CAAATATAG AGCATCCAC TAGCTAGCAC ACATGCACAA 1800
 GACATAGTTC AAATAATAAC AGATGCACTA CTGGAATGT TTCCGGAAAT CACTGTGGAA 1860
 AATCTTCCCA GTATTTTCAG ACTTCAGAAA CCATTATTGA TTTTGTTCAG TGATGGCACT 1920
 70 GTAAATCTCT CATATATAAA AGCAATATTG ACCTGGTAA AGCAGAAATA CTTGGATICA 1980
 TTTACTCCAT GCTGGTTAAA TCTAAGAAAT ACTCCAGTGG GGAGAGGAAT CTTGAGGGCA 2040
 TATTTGATC CTCTGCTCTC CCTTCTCTCT CTTGTTTGG TGAATCTGCA TTCAGGTGGC 2100
 CAGTATTTTG CAGTCTCTTC AGAAGAGGCT ATAATTGAAG AAAACCTTGT ATTGTGGCTG 2160
 AAGAAATTAG AAGCAGGACT AGAAAATCAT ATCACAATTT TACCTGCTCA AGAATGGAAA 2220
 75 CCTCCTCTTC CAGCTTATGA TTTTCTAAGT ATGATAGATG CCGCAACATC TCAACGTGGC 2280
 ACTAGGAAG TTCCCAAGTG TATGAAAGAA ACAGATGTGC AGGAGAAATGA TAAGGAACAA 2340
 CATGAAGATA AATCGGCAGT CAGAAAAGAA CCBATTGAAA CTCTGAGAAAT AAGCATTGG 2400
 AATAGAAGTA ATTGGTTTAA AGAAGCAGAA AAATCATTTA GACGTGATAA AGAGTTAGGA 2460
 TGCTCAAAAG TGAACATA

Seq ID NO: 546 Protein sequence
 Protein Accession #: BAA92582.1

1 11 21 31 41 51

MFSGFNVFRV GISFVIMCTF YMPVNSLPE LSPQKYFSTL QPGKASLAYF CQADSPRTSV 60
 FLEELNEAVR PLQDYGISVA KVNVCKEEIS RYCGKEKDIM KAYLFKGNIL LREFPTDTLF 120
 DVNAIVAHVL FALFSESVKY ITNLEDLQNI ENALKGKANI IFSYVRAIGI PEHRAYMEAA 180
 FVYGITYQFV LTTBIALLES IGSEDVEYAH LYFFHCKLVL DLTQCCRRTL MEQLPTLINT 240
 5 HLFIKTMKAP LLTEVASEDPQ QVSTVHLQLG LPLVFIVSQQ ATYEADRRTA EWMVWRLLGX 300
 AGVILLLRDS LEVNIPQDAN VVFKRAEEGV PVEPLVLHDV DLISHVENN MHIEEIQEDE 360
 DNDMEGPDID VQDDEVAETV FRDRKRLFL ELTVELTEET FNATVMASDS IULFYAGWQA 420
 VSMATLQSYI DVAVKLKGTG TMLLTRINCA DMSDVCTKQN VTEFPIIRMY KKGPNVBYA 480
 GMLGTEDLLK PIQLNRISYP VNITSIQEAE EYLSGELYKD LILYSSVSVL GLFSPTMKTA 540
 10 KEDFSEAGNY LKGYVIITGIY SEEDVLLST KYAASLPALL LARHTGKIE SIPLASTHAQ 600
 DIVQIITDAL IEMPEITVE NLPSYFRLQK PLLILFSDGT VNPQYKAIL TLVKQKYLDS 660
 FTFCHNLNEN TFGVGRILRA YFDPLPLPL LVLVNLHSGG QVFAFSPDQA IIBENLVWL 720
 RKLEAGLENH ITILPAQEWK PPLPAYDFLS MIDAATSORG TRKVPKCKE TUVQENDKEQ 780
 15 HEDKSAVRKE PIETLRKHW NRSNWFKEAE KSFRRDKELG CSKVN

Seq ID NO: 547 DNA sequence

Nucleic Acid Accession #: NM_033102.1

Coding sequence: 1..1662

20 1 11 21 31 41 51
 | | | | |
 ATGGTCACGA GCGCTGCGGT GAGCCGCGCT CTGCGGCACC GGAAAGCCCA GCTCTTGCTG 60
 GTCAACCTGC TAACCTTGGG CCGGAGGTG TGTTTGGCGG CAGGCATCAC CTATGTGCCG 120
 25 CCTCTGCTGC TGAAGTGGG GGTAGAGGAG AAGTTCTATG CCATGGTGCT GGGCATTGGT 180
 CCAGTGTCTG GCTGGTCTG TGTCCGCTC CTAGGCTCAG CCAGTACCA CTGGCGTGA 240
 CGCTATGGCC GCGCGCGGCC CTTTCATCTG GCACTGTCTT TGGGCATCCT GCTGAGCCTC 300
 TTTCATCATC CAAGGCGCGG CTGGCTAGCA GGGCTGCTGT GCGCGATCC CAGGCCCTG 360
 GAGCTGGCAC TGCTCATCTT GGGCGTGGGG CTGCTGGACT TCTGTGGCCA GGTGTGCTTC 420
 30 ACTCCACTGG AGGCCCTGCT CTCGACCTC TTCCGGGACC CGGACCACTG TCGCCAGGCC 480
 TACTCTGTCT ATCTCTTCTT GATCAGTCTT GGGGCTGCC TGGGCTACCT CCGCCTGCTC 540
 ATTGACTGGG ACACCACTGC CCGGCGCCCC TACCTGGGCA CCCAGGAGGA GTGCTCTTT 600
 GGCTGCTCTA CCTCATCTT CTTCACTGCT GTAGCAGCCA CACTGCTGCT GGTGAGGAG 660
 GCAGCGCTGG GCGCCACCGA GCGAGCAGAA GGGCTGTGCG CCGCTCTCTT GTGCCCCAC 720
 TGCTGTCCAT GCGCGCGCGG CTGCGCTTTC CGGAACCTGG GCGCGCTGCT TCCCGGCTG 780
 35 CACGAGCTGT GCTGCGCGAT GCGCGCGCAC CTGCGCGCGC TCTTGTGGGC TGAGCTGTGC 840
 AGCTGGATGG CACTCATGAC CTTCACTGCT TTTTACAGG ATTTCTGTGG CGAGGGGCTG 900
 TACGAGGAGG TGCCGAGAGC TGAGCGCGGC ACGAGGCGCC GGAGACACTA TGATGAAGGC 960
 GTTCGGATGG GCAGCTCTGG GCTGTCTCTG CAGTGGGCCA TCTCCTGCT CTCTCTCTG 1020
 40 GTCATGACC GAGCTGTGCA GCGATTGCGC ACTCGAGCAG TCTATTGGC CAGTGTGGCA 1080
 GCTTTCCCTG TGGCTGCCGG TGCCACATGC CTGTCCACA GTGTGGCGCT GTGACAGCT 1140
 TCAGCGCGCC TCACCGGGTT CACCTTCTCA GCGCTGAGA TCTGTCCCTA CACTGTGGC 1200
 TCCCTCTACC ACCGGGAGAA GCAGGTGTTT CTGCCCAAT ACCGAGGGGA CACTGGAGT 1260
 GCTAGCAGG AGGACAGCCT GATGACAGC TTCTGCCAG GCGCTAAGCC TGGAGCTGCC 1320
 45 TTCCCTAATG GACACGTGGG TGCTGGAGGC AGTGGCTTGC TCCCACTCC ACCCGGCTC 1380
 TGGGGGGCCT CTGCTGTGGA TGTCTCTGTA CGTGTGCTGG TGGGTGAGCC CACCGAGGCC 1440
 AGGTGTGTTT CCGGCGCGGC CATCTGCGCT GACCTCGCCA TCTGTGATAG TGCTTCTG 1500
 CTGTCCAGG TGGCCCATC CTTGTTATG GGTCTCATG TCCAGCTAG CCACTGTGTC 1560
 ACTGCTATA TGGTGTCTGC CGCAGGCTG GGTCTGCTG CCATTTCAT TGCTACACAG 1620
 50 GTAGTATTG ACAAGAGCGA CTTGCCCAA TACTAGCGT GA

Seq ID NO: 548 Protein sequence

Protein Accession #: NP_149093.1

55 1 11 21 31 41 51
 | | | | |
 MVQLWVSR LRRKQALL VMLTFGLEV CLAAGITYVP FILLVGVVEE KFMNVLGIG 60
 FVLGVVCP LGSASDHWG RYRRRPFIW ALSLGILLSL FLIPRAGILA GLCPDPRPL 120
 ELALLLGVG LDFCQVCF TPLEALLSDL PRDPDHCRA YSVYAFMISL GGLGYLLPA 180
 60 IDMTSALAP YLGTQECLE GLLTLIFLTC VAATLLVAEE AALGPTEPAE GLSAPSLSPH 240
 CCPCRARLAF RNLGALLPRL EQLCCRMPT LRLLFVAELC SNMALMTFTL FYTDFVGEGL 300
 YQGVRAEPG TRARRHYDEG VRMGSLGDFL QCAISLVFSL VMDRLVQRFQ TRAVYLASVA 360
 APPVAAGATC LSHSVAVVTA SAALTGFTFS ALQILPYTLA SLVHREKQVF LPKYRGDTGG 420
 ASSEDSLMTS FLEGPFGAP PFNGHVAGG SGLLPPPPAL CGASACDVSF RVVVGEPTFA 480
 65 RVVPRGICL DLAILDSAPL LQVAPSLFM GSIVQLSQSV TAYMVAAGL GLVAIYPATQ 540
 VVEDKSLAK YSA

Seq ID NO: 549 DNA sequence

Nucleic Acid Accession #: Eos sequence

Coding sequence: 1..1389

70 1 11 21 31 41 51
 | | | | |
 ATGGGCTACC AGAGGCAGGA GCGTGTCTC CCGCGCGAGA GAGATTAGA TGACAGAGAA 60
 ACCCTTGTTT CTGACATGA GTATAAGAG AAAACCTGTC AGTCTGCTG TCTTTTAAAT 120
 75 GTTGTCAACT CGATTATAG ATCTGGTATA ATAGGATTGC CTTATTCAAT GRAGCAAGCT 180
 GGGTTTCTT TGGGAATAT GCTTTTATC TGGGTTTCAT ATGTTACGGA CTTTCCCTT 240
 GTTTTATTA TAAAGAGAG GCGCTCTCT GGAACAGATA CCTACCAATC TTGTGCTCAAT 300
 AAAACTTTCG GCTTTCAGG GTATCTGCTC CTCTCTGTTT TCCAGTTTGT GTATCCTTTT 360
 80 ATAGCAATGA TAGGTACAA TATAATAGCT GGAGATACTT TGAGCAAGT TTTTCAAGA 420
 ATCCAGGAG TTGATCTGA AAACGTGTTT ATTGGTGGC ACTTCATTAT TGGACTTTC 480
 ACAGTACCTT TACTCTGCC TTTATCTGT TACCGAATA TAGCAAGCT TGGAAAGGTC 540
 TCCCTCATCT CTACAGGTTT AACAACTCTG ATCTTGGAA TTGTAATGCG AAGGGCAATT 600
 TCACGGGCTC CACACATACC AAAAACAGAA GACGCTTGGG TATTTCGAA GCCCAATGCC 660
 ATTCAAGCGG TCGGGGTTAT GCTTTTGCA TTTATTGCG ACCATAACT CTTCTTAGTT 720

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TACAGTTCTC TAGAAGAACC CACAGTAGCT AAGTGGTCCC GCCTTATCCA TAIGTCCATC 780
GTGATTTCTG TATTTATCTG TATATTTCTT GCTACATGTG GATACTTGAC ATTTACTGGC 840
TTCACCCCAAG GGGACTTATT TGAAATATAC TGCAGAAATG ATGACCTGGT AACATTGGGA 900
AGATTTTGTG ATGGTGTGAC TGTCATTTTG ACATACCCTA TGGAAATGCTT TGTGACAAGA 960
GAGGTAATG CCAATGTGTT TTTTGGTGGG AATCTTTTCAT CGGTTTTCCTA CATGTGTGTA 1020
ACAGTGATGG TCATCAGTGT AGCCACGCTT GTGTCTTTCG TGATTGATTG CCTCGGGATA 1080
GTCTTAGAAC TCAATGGTGT GCTCTGTGCA ACTCCCTTCA TTTTATCAT TCCATCAGCC 1140
TGTTATCTGA AACTGTCTGA AGAACCAAGG ACACACTCCG ATAAGATTAT GTCTTGTGTC 1200
ATGCTTCCCA TTGGTGTCTG GTGATGGTT TTTGGATTGG TCATGGCTAT TACAAATACT 1260
CAAGACTGCA CCCATGGGCA GGAATGTTC TACTGCCTTC CTGACAAATT CTCTCTACA 1320
AATACTCAG AGTCTCATGT TCAGCAGACA ACACAACTTT CTACTTTAAA TATTAGTATC 1380
TTTCAATGA

Seq ID NO: 550 Protein sequence
Protein Accession #: Eos sequence

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MGYQRQEPVI PPQRDLDDRE TLVSEHEYKE KTCQSAALFN VVNSIIGSGI IGLFYSMKQA 60
GFPPLGILLF WVSIVYDPSL VLLIKGGALS GTDTYQSLVN KTFGFPQYLL LSVLQFLYPF 120
IAMISYNIA GTLLSKVQR IPGVDPENVF IGRHFIIIGLS TVTFTLPLSL YRNIAKLKGV 180
SLISTGLTLL ILGIVMARAI SLGPHIPKTE DANVFAKPNA IQAVGVMSFA FICHNSFLV 240
YSSLEPTVA KMSRLIHMSI VISVFICIFF ATCGYLTFTG FTQGDLPENY CRNDLVTFG 300
RFCYGVTVIL TYPMECFVTR EVLAVFEGG NLSSVFHIV TVMVITVATL VSLLDCLGI 360
VLELNGVLC TPLIFIPSA CYLKLSEPR THSDKIMSCV MLPIGAVVMV PGFVMAITNT 420
QDCTGQEMF YCFDFNFLT NTSSSHVQOI TQLSTLNISI EQ

Seq ID NO: 551 DNA sequence
Nucleic Acid Accession #: Eos sequence
Coding sequence: 1..1284

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Seq ID NO: 554 Protein sequence
Protein Accession #: Bos sequence

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Seq ID NO: 555 DNA sequence
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| 5 | TTCAAGGATG | GAGCTGAAAT | GGGTGAACCG | ACAAAGTCGG | TAAACTGAAT | GGAGGATGCC | 780 |
| | TTCCGGGCGG | CCGTGTGAC | CGTGTGGGAC | AGCGATGCAC | ACACCACGGA | GAAGCCCAACC | 840 |
| | GATGCCCTACG | GAGAGCTGGA | CTTCACGGGG | GCCGGCCGCA | AGCACAGCAA | TTTCTCTCGG | 900 |
| | CTCTCTGACC | GAACGGATCC | AGCTGCAGTT | TATAGTCTGG | TCACACGCAC | ATGGGGCTTC | 960 |
| | CGTGCCCGGA | ACCTGTGTGT | GTCACTGTCTG | GGGGGATCGG | GGGCCCTCGT | CCTCCAGACC | 1020 |
| | TGGCTGCGGG | ACCTGCTGCG | TGCTGGGCTG | GTGCGGGCTG | CCCAGAGCAC | AGGAGCCCTGG | 1080 |
| | ATTGTCACTG | GGGTGTCTGA | CACGGGCATC | GGCCGGCATG | TTGGTGTGGC | TGTACGGGAC | 1140 |
| | CATCAGATGG | CCAGCACTGG | GGGCACCAAG | GTGGTGGCCA | TGGGTGTGGC | CCCCTGGGGT | 1200 |
| 10 | GTGGTCCGGA | ATAGAGACAC | CCTCATCAAC | CCCAAGGGCT | CGTTCCCTGC | GAGGTACCGG | 1260 |
| | TGGGCGGGTG | ACCGGAGGGA | CGGGGTCCAG | TTTCCCTCGG | ACTACAACTA | CTCGGCTTTC | 1320 |
| | TTCTCTGGTG | ACGACGGCAC | ACACGGCTGC | CTGGGGGGCG | AGAACCGCTT | CCGCTTGGCG | 1380 |
| | CTGGAGTCTT | ACATCTCACA | GCAGAAGACG | GGCTTGGGAG | GGACTGGAAT | TGACATCCCT | 1440 |
| | GTCTCTGCTC | TCTGTATGGA | TGGTGTATGAG | AAGATGTGTA | CGCGAATABA | GAACCCCAAC | 1500 |
| 15 | CAGGCTCAEC | TCCCATGTCT | CCTCGTGGCT | GGCTCAGGGG | GAGCTGCGGA | CTGCTTGGCG | 1560 |
| | GAGACCTCGG | AAGACACTCT | GGCCGCCGGG | AGTGGGGGAG | CCAGGCAAGG | CGAAGCCCGA | 1620 |
| | GATCGAATCA | GGCGTTTCTT | TCCCAAGGGG | GACCTTGAGG | TCTTCAGGSC | CCAGGTGGAG | 1680 |
| | AGGATTATGA | CCCGGAAGGA | GCTCTTGACA | GTCTATTCTT | CTGAGGATGG | GTCTGAGGAA | 1740 |
| | TTCCGAGACA | TAGTTTGTAA | GGCCCTTGTT | AAGGCTGTGT | GGAGCTCGGA | GGCCTCAGCG | 1800 |
| 20 | TACCTGGATG | AGCTGGGTTT | GGCTGTGGCT | TGGAAACCGG | TGGACATTTC | CCAGAGTGAA | 1860 |
| | CTCTTTCCGG | GGGACATCCA | ATGGGCGTCC | TTCATCTCG | AAGCTTCCCT | CATGGACGCC | 1920 |
| | CTGCTGAATG | ACCGGCTTGA | GTTCGTGCGC | TGCTCATTTT | CCCACGGCCT | CAGCCTGGGC | 1980 |
| | CACCTCTGTA | CCCCGATGCG | CCTGGCCCTA | CTCTACAGCG | CGGCGCCCTC | CAACTCGCTC | 2040 |
| | ATCCGCAACC | TTTTGGACCA | GGCGTCCAC | AGCGCAGGCA | CCAAAGCCCC | AGCCCTTAAA | 2100 |
| 25 | GGGGGAGCTG | CGGAGTCCG | GGCCCTGAC | GTGGGGCATG | TGCTGAGGAT | GCTGCTGGGG | 2160 |
| | AAGATGTGCG | GGCGGAGGTA | CCCTCCGGG | GGCGGCTGGG | ACCTCAACCC | AGGCCAGGGC | 2220 |
| | TTCCGGGAGA | CGATGTATCT | GCTCTCGGAC | AAGGCCACCT | CGCGGCTCTC | GCTGGATGCT | 2280 |
| | GGCTCTGGGC | AGGCGCCCTG | GAGCGACCTG | CTTCTTTGGG | CAGTGTGTCT | GAACAGGGCA | 2340 |
| | CAGATGGCCA | TGTACTCTCG | GGAGATGGGT | TCCAATGCAG | TTTCTCAGC | TCTTGGGGCC | 2400 |
| | TGTTTGTCTG | TCCGGGTGAT | GGCAGCCCTG | GAGCCTGACG | CTGAGGAGGC | AGCACGGAGG | 2460 |
| 30 | AAAGACCTGG | CGTTCAAGTT | TGAGGGGATG | GGCGTTGACC | TCTTTGGCGA | GTCCTATCGC | 2520 |
| | AGCAGTGAGG | TGAGGGCTGC | CCGCTCTCTC | CTCCGTGCTC | GGCGGCTCTC | GGGGGATGCC | 2580 |
| | ACTTGGCTCC | AGCTTGGCCAT | GCAAGCTGAC | GGCGGTGCTC | TCTTTGCCCA | GGATGGGGTA | 2640 |
| | CAGTCTCTGC | TGACACAGAA | GTGTGTGGGA | GATATGGCCA | GCACTACACC | CATCTGGGCC | 2700 |
| 35 | CTGGTTCTCG | CCCTCTTTTG | CCCTCCACTC | ATCTACACCC | GCCTCATCAC | CTTCAGGAAA | 2760 |
| | TCAGAAAGGG | AGCCCACTCG | GGAGGAGCTA | GAGTTTGACA | TGATATGTGT | CATTATATGG | 2820 |
| | GAAGGGCCCTG | TCCGGACCGG | GGACCCAGCC | GAGAAGAGCC | CGCTGGGGGT | CCCGGCCCCG | 2880 |
| | TCCGGCCCTTC | CGGTTTGTCT | CGGGGGCCCG | TCCGGGGGGC | GCCGGTGCTC | ACGCGGCTGG | 2940 |
| | TTCCACTCTT | GGGGCGCGCC | GGTGACCATC | TTCATGGGCA | AGTGTGTGAG | CTACCTGTCT | 3000 |
| 40 | TTCTCTGCTG | TTTTCTCGCG | GGTGTGCTC | GTGGATTTCC | AGCCGGCGCC | GGCGGCTCTC | 3060 |
| | CTGGAGCTGC | TGCTCTATTT | CTGGGCTTTC | ACGCTGCTGT | GGAGGAACT | GGCCAGGGGC | 3120 |
| | CTGAGCGGAG | GGCGGGGCG | CCTCGGACG | GGGGGCCCCG | GGCTTGGCCA | TGCTCTACTG | 3180 |
| | AGCCAGCGCC | TCCGCTCTTA | CCTCGGCGAC | AGCTGGAAAC | AGTGGGACCT | AGTGGCTCTC | 3240 |
| | ACCTGCTTCC | TCTTGGGCGT | GGGCTGCGCG | CTGACCCCGG | GTTTGTACCA | CCTGGGCGGC | 3300 |
| 45 | ACTGTCTCTC | GCATGGAGCT | CATGGTTTTC | ACGGTGGGGC | TGCTTCACAT | CTTCAGGCTC | 3360 |
| | AAACAAACAG | TGGGGGCCAA | GATGCTCATC | GTGAGCAAGA | TGATGAAGGA | CGTGTCTCTC | 3420 |
| | TTCTCTCTTC | TCTCTGGCGT | GTGGCTGGTA | GCCTATGGCG | TGGCCACGGA | GGGGCTCTCT | 3480 |
| | AGGCCACCGG | ACAGTGACCT | CCCAAGTATC | CTGCGCGCGG | TCTTCTACCG | TCTCTACTCT | 3540 |
| | CAGATCTTGG | GGCGAGATCC | CCAGGAGGAC | ATGGACGCTG | CCCTCATGGA | GCACAGCAAC | 3600 |
| 50 | TGCTCTGCTG | AGCCCGGCGT | CTGGGCACAC | CCTCTGGGGG | CCAGGCGGGG | CACTTGGGTC | 3660 |
| | TCCAGTATG | CCAAGTGGCT | GSTGGTGCTG | CTCCTGTGTA | TCTTCTGCTC | CGTGGCCAAC | 3720 |
| | ATCCTGCTG | TCAACTTGCT | CAITGGCCATG | TTCAGTTACA | CATTCCGGCA | AGTACAGGGC | 3780 |
| | AAACAGGATC | TCTACTGGAA | GGCGGAGGCT | TACCGGCTCA | TCCGGGAATT | CCACTCTGCG | 3840 |
| | CCCGCGCTGG | CCCGGCCCTT | TATCTCTATC | TCCCACTTGC | GCCTCTGCTC | CAGGCAATTG | 3900 |
| 55 | TGCAAGGCGC | AGCGGAGGCC | CCAGCGGCTC | TCCCGGCGCC | TGAGGCAATT | CCGGGTTTAC | 3960 |
| | CTTTCTAAGG | AAGCCGAGCG | GAGCTGCTTA | ACGTGGGAAT | CGGTGCATAA | GGAGAACTTT | 4020 |
| | CTGCTGCGAC | GGCTTAGGGA | CAAGCGGCGG | AGCGACTCCG | AGCGTCTGAA | GGCAGCTGCC | 4080 |
| | CAGAAGGTGG | ACTTGGCACT | GAACAGCTG | GGACACATCC | GCGAGTACGA | ACAGCGGCTG | 4140 |
| | AAAGTGTCTG | AGCGGAGGCT | CCAGCAGTGT | AGCCGCGCTC | TGGGGTGGGT | GGCCGAGGGC | 4200 |
| 60 | CTGAGCGGCT | CTGCTTGTCT | GGCCCGGAGT | GGCGCGCCAC | CCCTTACCTT | GCCTGGGTCC | 4260 |
| | AAAGACTGAG | CCCTGCTGGC | GGACTTCAAG | GAGAAGCCCC | CACAGGGGAT | TTTGTCTCTA | 4320 |
| | GAGTAAGGCT | CATCTGGGCC | TCCGCCCCCG | CACCTGCTGG | CCTTGTCTCT | GAGGTGAGCC | 4380 |
| | CCATGTCCTT | CTGGGCTACT | GTCAAGGACCA | CCTTGGGGAG | TGTCTCTCTT | ACAAACCAAC | 4440 |
| | GCATGCCCTG | CTCCTCCAG | AACCAAGTCC | AGCCTGGGAG | GATCAAGGCC | TGGATCCCGG | 4500 |
| 65 | GGCGTTATCC | ATCTGAGGCG | TGCAGGGTCC | TTGGGGTAAC | AGGGACCAAC | GACCCCTCAC | 4560 |
| | CATCTACAGA | TTCTCTACAC | TGGGGAATA | AAGCCATTTC | AGAGGAAAAA | AAAAAAAAAA | 4620 |
| | AAAAAAAAAA | AAAAAAAAAA | A | | | | |

Seq ID NO: 558 Protein sequence
Protein Accession #: XP_057188.1

| | | | | | | | |
|----|------------|------------|------------|------------|-------------|------------|-----|
| 70 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| | MEDAFGAAYV | TVWDSDAHTT | EKPTDAYGEL | DFTGAGRKHS | NFLRLSDRTD | PAAYVSLVTR | 60 |
| | TWGFRAENLV | VSVLGGSGGP | VLQTLQDL | RRGLVRAAQ | TGAMIVTGG | HTGIGRHVGV | 120 |
| 75 | AVRDHQMST | GGTKVYAMGV | APWGVVRNRD | TLINPKGSFP | ARYRWGDEPE | DGVQFPLDYN | 180 |
| | YSAAFLVDDG | THGCLGGENR | FLRLLESYIS | QKRTGVGGTG | IDIPVLLILLI | DGDEKMLTRI | 240 |
| | ENATQAQLPC | LIVAGSGGAA | DCLAETLEDT | LAPGSGGARQ | GEARDIERRP | FPKIDLEVLQ | 300 |
| | AQVERIMTRK | ELLTVYSSED | GSEEFETIVL | KALVKACGSS | EASAYLDEL | LAVANNKVDI | 360 |
| 80 | AQSELPRGDI | QWRSPHLEAS | IMDALLNDPR | EFVRLLSHSG | LSLGHFLTPM | RLAQLYSAAP | 420 |
| | SNLRLNLMD | QASESAGTKA | PALKGGAAEL | RFPDVGHVLR | MLLGKMCAPR | YPSGGWDPH | 480 |
| | PGQGFESMY | LLEDKATSP | SLDAGLGQAP | WSDILLWALL | LNRAQMANFY | WEMGSNAVSS | 540 |
| | ALGACILLRV | MARLEPDABE | AARRKDLAPK | FEGMGVDLFG | ECYRSSEFVRA | ARLLLRRCPL | 600 |
| | WGDATCQLA | MQADARAFFA | QDGVQSLTQ | KWNGDMASTT | PIWALVLAFP | CPPLIYTRLI | 660 |
| | TFRKSEBEP | RELEBPDMS | VINGSGPVGT | ADPAEKTPFG | VFRQSGRPCC | CGRCGGRRRC | 720 |

5 LRRWFHFWGA PVTFPMGNVV SYLLFLLLPF RVLLVDFQPA PPGSLKLLLY FWAFTLLCEE 780
 LRQLSGGGG SLA9GGPGPG HASLSQRLRL YLADSWNQCD LVALTCFLLG VGCRLTPGLY 840
 HLGGTVLCID FMVTVRLHLH IFTVNRQLGF KIVTVSKMMK DVFFFLFLLG VMLVAYGVAT 900
 EGLLRPRDSF FPSILRRVVF RPYLQIFGQI PQEDMDVALM EHSNCSSEFG FWAHPGAQA 960
 GTCVSQYANW LVVLLLVIFL LVANILLVNL LIAMFSYTFG KVQGNSDLYW KAORYRLIRE 1020
 FHSRPALEPP FIVISHRLLL LRQLCRPRPS PQPSPALEH FRVYLSKEAB RKLLTWESVH 1080
 KENFLARAR DKRESDSERL KRYSQKVDLA LKQLGHIREY EQRLKVLERE VQCCSRVLGW 1140
 VAEALRSAL LPPGPPPPD LPGSKD

10 Seq ID NO: 559 DNA sequence
 Nucleic Acid Accession #: NM_006853.1
 Coding sequence: 26..874

15 1 11 21 31 41 51
 AGGAATCTGC GCTCGGGTTC CGCAGATGCA GAGGTGAGG TGGCTGCGGG ACTGGAAGTC 60
 ATGGGGCAGA GGTCTCCAG CAGCCAAGGA ACCTGGGGCC CGCTCCCTCC CCTCCAGGC 120
 CATGAGGATT CTGCAGTTAA TCTGCTGTGC TCTGGCAACA GGGCTGTAG GGGGAGAGAC 180
 CAGGATCATC AAGGGGTTCG AGTGAAGCC TCACTCCAG CCTGGCAGG CAGCCCTGTT 240
 20 CAGGAAGACG CGGCTACTCT GTGGGGCGAC GCTCATCGCC CCCAGATGGC TCCTGACAGC 300
 AGCCCACTGC CTCAGCCCC GCTACATAGT TCACCTGGGG CAGCACAACC TCCAGAAGGA 360
 GAGAGGCTGT GAGCAGACCC GGACAGCCAC TGAGTCCTTC CCCACCCCG GCTTCAACAA 420
 CAGCCCTCCC AACAAAGACC ACCGCAATGA CATCATGCTG GTGAAGATGG CATCGCCAGT 480
 CTCCATCACC TGGGCTGTGC GACCCCTCAC CCTCTCCTCA GCTGTGTCTA CTGCTGGCAC 540
 25 CAGCTGCCTC ATTTCCCGCT GGGGCGACAC GTCCAGCCCC CAGTTACGCC TGCCTCACAC 600
 CTTGCGATGC GCCAACATCA CCATCATTGA GCACCAGAAG TGTGAGAAAG CCTACCCCGG 660
 CAACATCACA GACACCATGG TGTGTGCCAG CTGTGAGGAA GGGGGCAAGG ACTCTGCCA 720
 GGGTGACTCC GGGGGCCCTC TGGTCTGTAA CCACTCTCTT CAAGGCATTA TCTCCTGGGG 780
 30 CAGGATCCG TGTGCGATCA CCGAAAGCC TGGTGTCTAC ACGAAAGTCT GCAATATGT 840
 GGACTGGATC CAGGAGACGA TGAAGAACAA TTAGACTGGA CCCACCCACC ACAGCCCATC 900
 ACCCTCCATT TCCACTTGGT GTTGTGTTCC TGTTCACCT GTTAATAAGA AACCTTAAGC 960
 CAAGACCTTC TACGAACATT CTTTGGGCTT CCTGGACTAC AGGAGATGCT GTCACTTAAT 1020
 AATCAACCTG GGGTTCGAAA TCAGTCAGAC CTGGATTCAA ATTCGCTT GAAATATTGT 1080
 35 GACTCTGGGA ATGACAACAC CTGGTTTGT CTCTGTGTA TCCCGAGCCC CAAAGACAGC 1140
 TCCTGGCCAT ATATCAAGGT TTCAATAAAT ATTTGCTAAA TGAGTG

Seq ID NO: 560 Protein sequence
 Protein Accession #: NP_006844.1

40 1 11 21 31 41 51
 MRILQLYLLA LATGLVGGET RIIGGFCEKP HQPFWQAALF EKTRILLOGAT LIAPRNMLTA 60
 ARCLKPRYIV HLGQHNLOKE EGCEQTRTAT ESFPEHPFNN SLPNKDHEND IMLVRMASPV 120
 45 SITWAVRPLT LSSRCVTAGT SCLISGWSGT SSPQLRLPHT LRCAITIIIE HQKCNAYPG 180
 NITDTMVCAS VQGGKQDSQ GDSGGFLVCN QSLQGIISWG QDPCAITRKP SVYTKVCKYV 240
 DWIQETMKNN

50 Seq ID NO: 561 DNA sequence
 Nucleic Acid Accession #: AY046419.1
 Coding sequence: 1..1743

55 1 11 21 31 41 51
 ATGTTTACCT TCTGTCTATC TGTCACTGCT GCTGTCACTG CCTCTCTGCT GGGTTATGAA 60
 CTGGGATCA TCTCTGGGGC TCTTCTTCAG ATCAAAACCT TATTAGCCCT GAGCTGCCAT 120
 GAGCAGGAAA TGGTGTGTAG CTCCTCTGTC ATTGGAGCCC TCTTGGCTTC ACTCACGGGA 180
 GGGGTCTCTA TAGACAGATA TGGAGAAGG ACAGCAATCA TCTTGTCTAT CTGCTCTGCT 240
 GGACTCGGAA GCTTAGTCTT GATCCTCAGT TTATCTTACA CGGTCTCTAT AGTGGGACGC 300
 60 ATTGOCATAG GGGTTTCCAT CTCCTCTCTT TCCATTGCCA CTGTGTGTTA CATGCGAGAG 360
 ATTGCTCCTC AACACAGAAG AGGCTTCTT GTGTCACTGA ATGAGCTGAT GATTGTCTATC 420
 GGCATTCTTT CTGCTATATC TTCAAATAC GCATTGCOCA ATGTTTTCOA TGGCTGGGAG 480
 TACATGTTTG GTCCTGTGAT TCCCTGGGA GTTTGCAAG CAATTGCAAT GTATTTTCTT 540
 CCTCCAAGCC CTCGGTTTCT GGTGATGAAA GGAACAAGAG GAGCTGTAG CAAGGTTCCTT 600
 65 GGAAGGTTAA GAGCACTCTC AGATACAAT GAGGAATCA CTGTGATCAA ATCCTCCCTG 660
 AAGATGAAT ATCAGTACAG TTTTGGGAT CTGTTCTGTT CAAGAACAAC CATGCGGACC 720
 CGAATAATGA TAGCACTAAC ACTAGTATTT TTTGTACAAA TCACTGGCCA ACCAAACATA 780
 TTGTTCTATG CATCAACTGT TTTGAAGTCA GTTGGATTTT AAAGCAATGA GGCAGCTAGC 840
 CTCGCCCTCA CTGGGGTTTG AGTCGTCAAG GTCAATTAGA CCATCCCTGC CACTCTTCTT 900
 70 GTAGACCATG TGGCAGCAA AACATTCTTC TGCAATGGCT CCTCTGTGAT GGCAGCTTGG 960
 TTGGTGACCA TGGGCTATGT AAATCTCAAC ATCCACATGA ACTTCACCCA TATCTGCGAG 1020
 AGCCACAAAT CATCAACCA GTCTTGTGAT GAGTCTGTGA TTTATGGACC AGGAAACCTG 1080
 TCACCAACA ACATACTCTC CAGAGACCAC TTCAAGGGA TTTCTTCCA TAGCAGAGAGC 1140
 TCACATCATG CCTGAGAAA TGATGTGATG AAGAGAGGGG AGACGACCTC AGCATCTCTG 1200
 75 CTAAGTCTG GATTAAGCCA CACTGAATAC CAGATAGTCA CAGACCCTGG GGAGCTCCCA 1260
 GCTTTTGTGA AATGGCTGTC CTTAGCCAGC TTGCTTGTGT ATGTTGCTGC TTTTCAATT 1320
 GGTCTAGGAC CAATGCCCTG GCTGGTGTCT AGCGAGATCT TTCTGGTGG GATCAGAGGA 1380
 CGAGCCATGG CTTTAACCTC TAGCATGAAC TGGGGCATCA ATCTCCTCAT CTCGTGACA 1440
 TTTTGTAGT TAACTGATCT TATTGGCCTG CCATGGGTGT GCTTTATATA TACATCATG 1500
 80 AGTCTAGCAT CCTGTCTTTT TGTGTATG TTTATACCTG AGACAAAGGG ATGCTCTTGT 1560
 GAACAAATAT CAATGGAGCT AGCAAAAGTG AACTATGTGA AAAACAACAT TTGTTTATG 1620
 AGTCATCAC AAGAAAGATT AGTCCAAAA CAGCCTCAA AAAGAAACCC CCAGGAGCAG 1680
 CTCTTGGAGT GTAACAAGCT GTGTGGTAGG GGCCAATCCA GGCAGCTTTC TCCAGAGACC 1740
 TAA

Seq ID NO: 562 Protein sequence
Protein Accession #: AAL02327.1

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5 1      11      21      31      41      51
   |      |      |      |      |      |
MFIFLSSVTA AVSGLLVGYE LGIISGALLQ IKTLALSCH EQSMVVSSLV IGALLASITG 60
GVILIDRYGRR TAILLSCLL GLGSLVLLLS LSYTVLIVGR IAIGVSISSL SIATCVYIAE 120
IAPFERRGLL VSLNELMIVI GILSAYISNY AFANVFHGWK YMFGLVIPLG VLQAIAMYFL 180
PPSPRFLVMK QGEGAASKVL GRLRLSDIT BELTVIKSSL KDEYQVSFWD LFRSKDNMRT 240
10 RIMIGLTLVF FVQITQDPNI LPYASTVLKS VQFQSNEAAS LASTGVGVVK VLISTIPATLL 300
VDWVGSKTFL CIGSSVMAAS LVTMGIVNLN IHMNFTHICR SHNSINQSLD ESVIYGPQNL 360
STNNITLRDH PKGISSHSRG SIMPLRNDVD KRGETTSASL LNAGLSHTEY QIVTDPGDVP 420
AFLKWLSLAS LLVYVAAFSI GLGPMPLVL SEIFEGGIRG RAMALTSMMN WGINLLISLT 480
FLTVTDLIGL PWVCFIYTIM SLASLLFVVM FIPETKGC SL EQISMELAXV NYVRNNICFM 540
15 SHHQEELVPK QPQKRPQEQ LLECNKLCGR GQSRQLSPET

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Seq ID NO: 563 DNA sequence
Nucleic Acid Accession #: XM_059466.1
Coding sequence: 1..894

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20 1      11      21      31      41      51
   |      |      |      |      |      |
ATGGAGCCGC GGGCGCTCGT CACGGCGCTC AGCCTCGGCC TCAGCCTGTG CTCCTCGGGG 60
CTGCTCGTCA CGGCCATCTT CACCCACCAC TGGTACGAGA CCGACCCCGG GCGCCACAAG 120
25 GAGAGCTGCG AGCGCAGCCG CGCGGGCGCC GACCCCGCGG ACCAGAAGAA CCGCCTGATG 180
CGCTGTGTGC ACTTGCCTGT GCGGGACTCG CCCCCTCTGG GCGCCTCGCT GCTCCCGGGC 240
GGCCCGGGGG GCGCGGACCC CGAGTCTCTG CGCTCGCTCC TGGGGCTCGG CCGGCTGGAC 300
GCGGAGTGGG GCGGGCCCCC CTTCGCCACC TACTCGGGCC TCTGGAGGAA GTGCTACTTC 360
CTGGGCTATG ACGGGGACAT CGACACCTCT ATCCTGAAGG GTATTGCGCA GCGATGCACG 420
30 GCCATCAAGT ACCACTTTTC TCAGCCCATC CGCTTCCGAA ACATTCCTTT TAATTTAACC 480
AAGACCATAC AGCAGATGTA GTGGCACCCT CTCATTATAA GAAGAATCAC TGCTGGCTTC 540
CTCGGCTAGG CCGTAGCCGT CCTTCTCTGC GGCTGCATTG TGGCCACAGT CAGTTTCTTC 600
TGGGAGGAGA CCTTGACCCA GCACGTGGCT GGACTCCTGT TCCTCATGAC AGGGATATTT 660
TGACCACTTT CCTCTGTATC TTATGCCGOC AGTATCTCGT ATGATTGAA CCGGCTCCCA 720
35 AAGCTAATTT ATAGCCTGCC TGCTGATGTG GAACATGGTT ACAGCTGCTC CATCTTTTGC 780
GCCTGGTGCA GTTAGGCTT TATGTGGCA GCCTGAGGTC TCTGCATGCG TTATCGGTTT 840
ATTAGCCGGA CCAAGATTGC ACAGCTAAGG TCTGGCAGAG ACTCCACGGT ATGA

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Seq ID NO: 564 Protein sequence
Protein Accession #: XP_059466.1

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40 1      11      21      31      41      51
   |      |      |      |      |      |
MEPRALVTAL SLGLSLCSLG LLVTAIFTDH WYSTDPRRHK ESCERSRAGA DFPDQKNRLM 60
PLSHLEPLRDS PFLGRRLPLG GPGRADPESW RSLGLGLGLD AECGRPLFAT YGLWRKCYFP 120
LGIDREDITL ILKGIAQRCT AIKYHFSQPI RLNRNIPNLT KTIQDDEWHL LHLERITAGF 180
LGMMAVLLC GCIVATVSEF WEESLTQRAV GLFLMTGIF CTISLCTYAA SISYDLNRLP 240
KLIYSLFADV EHGYSWSIFC AWCSLGFIVA AGELCIAYPF ISRTKIAQLK SGRDSTV

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Seq ID NO: 565 DNA sequence
Nucleic Acid Accession #: Eos sequence
Coding sequence: 1..3315

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55 1      11      21      31      41      51
   |      |      |      |      |      |
ATGTCTTTTC GGGCAGCCAG GCTCAGCATG AGGAACAGAA GGAATGACAC TCTGGACAGC 60
ACCCGGAOCC TGTACTCCAG CGCGTCTCGG AGCACAGACT TGTCTTACAG TGAAAGCGAC 120
TTGGTGAATT TTATTCAAGC AAATTTTAAG AAACGAGAAT GTGTCTTCTT TACCAAAGAT 180
TCCAAGGCCA CCGAGAATGT GTGCAAGTGT GGCTATGCCC AGAGCCAGCA CATGGAAGGC 240
60 ACCCAGATCA ACCAAAGTGA GAAATGGAAC TACAAGAAAC ACACCAAGGA ATTTCTTACC 300
GAGCCCTTTG GGGATATTCG GTTTGAGACA CTGGCGAAGA AAGGGAGTGA TATACGCTG 360
TCTGTGACAC CCGACGCGGA AATCCTTTAC GAGCTGCTGA CCCAGCACTG GCACCTGAAA 420
ACACCCCAACC TGTTCATTTC TGTGACCGGG GCGCCCAAGA ACTTCGCCCT GAAGCCGCGC 480
ATGCGCAAGA TCTTCAGCCG GCTCATCTAC ATCGCGCAGT CCAAAGGTGC TTGGATTCTC 540
65 ACGGAGGCCA CCATTTATGG CCTGATGAAG TACATCGGGG AGGTGGTGAG AGATAACACC 600
ATCAGCAGGA GTTCAGAGGA GAATATTGTG GCCATTGGCA TAGCAGCTTG GGGCATGGTC 660
TCCACACGGG ACACCTCAT CAGGAATTGC GATGCTGAGG GCTATTTTTT AGCCAGTAC 720
CTTATGGATG ACTTCACAAG AGATCCACTG TATATCTTGG ACAACAACCA CACACATTG 780
CTGCTCGTGG ACAATGGCTG TCATGGACAT CCCACTGTG AAGCAAAGCT CCGGAATCAG 840
70 CTAGGGAAGT ATATCTCTGA GCGCACTATT CAGGTTTCCA ACTATGGTGG CAAGATCCCC 900
ATTGTGTGTT TTGCCCAAGG AGGTGGAARA GAGACTTTGA AAGCCATCAA TACCTCCATC 960
AAAAATAAAA TTCTTGTGTG GTTGGTGGAA GGCTCGGGCC AGATOGCTGA TGTGATCGCT 1020
AGCCTGTGTG AGGTGAGAGA TGCCCTGACA TCTTCTGCGG TCAAGAGAGA GCTGGTGCGG 1080
75 TTTTACCCC GCACGCTGTC CCGCTGCTCT GAGGAGGAGA CTGAGAGTTG GATCAAAATGG 1140
CTCAAAGAAA TTCTCGAATG TTCTCACCTA TTAACAGTTA TTAAGATGGA AGAAGCTGGG 1200
GATGAATATG TGAGCAATGC CATCTCTTAC GCTCTATACA AAGCCTTCAG CACCAAGTGA 1260
CAAGACAGAG ATACATGGAA TGGGAGCTG AAGCTTCTGC TGGAGTGGAA CCAGCTGGAG 1320
TTAGCCATAG ATGAGATTTT CACCAATGAC CGCCGATGGG AGTCTGCTGA CCTTCAGAA 1380
GTCTGTGTTA CGCTCTCAT AAAGGACAGA CCAAGTTTGG TCCGCTCTCT TCTGGAGATG 1440
80 GGCTTGAACC TAGGAGATTT TCTACCCCAT GATGTOCTCA CTGAACCTCT CTCCAACAC 1500
TTCAGCAAGC TTGTGTACCG GAATCTGCAG ATCGCCAAGA ATTCTATATA TGAATGCCCT 1560
CTCAGCTTTG TCTGGAAACT GGTTCGGAAC TCCGAAGAG GCTTCCGGA GGAAGACAGA 1620
AATGCGCGGG ACCAGATGGA CATAGAATCT CACGACGTGT CTCTATTAC TCGGCACCCC 1680
CTGCAAGCTC TCTCATCTG GCCATTCTT CAGATAAGA AGGAACCTCT CAAAGTCATT 1740

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5 TGGGAGCAGA CCAGGGGCTG CACTCTGGCA GCCCTGGGAG CCAGCAAGCT TCTGAAGACT 1800
 CTGGCCAAAG TGAAGAACGA CATCAATGCT GCTGGGGAGT CCGAGGAGCT GGCTAATGAG 1860
 TACGAGACCC GGGCTGTGTA GCTGTTCAC T GAGTGTACCA GCAGCGATGA AGACTTGGCA 1920
 GAACAGCTGC TGGTCTATTC CTGTGAAGCT TGGGGTGGAA GCACACTGCT GGAGCTGGCG 1980
 GTGGAGGCCA CAGACCACCA TTTCATCGCC CAGCCTGGGG TCCAGAATTT TCTTCTAAG 2040
 CAATGGTATG GAGAGAITTC CCGAGACACC AAGAACTGGA AGATTATCCT GTGTCTGTTT 2100
 ATTATACCTT TGGTGGGCTG TGGCTTTGTA TCATTTAGGA AGAAACCTGT CGACAAGCAC 2160
 AAGAAGCTGC TTGTGTACTA TGTGGGGTTC TTCACCTCCC CCTCGTGGT CTCTCTCTGG 2220
 10 AATGTGGTCT TCTACATCGC CTTCCTCTG CTGTTTGCTT ACCTGCTGCT CATGGATTTC 2280
 CATTCGGTGC CACACCCGCC CGAGCTGGTC CTGTACTCGC TGGTCTTTGT CCTCTCTGT 2340
 GATGAAGTGA GACAGTGGTA CGTAAATGGG GTGAATTATT TACTGACCT GTGGAATGTG 2400
 ATGGACACGC TGGGGCTTTT TTACTTCATA GCAGGAATTG TATTTCGGCT CCACCTCTCT 2460
 AATAAAGCT CTTTGTATTG TGGACGATC ATTTTCTGTC TGGACTACAT TATTTTCACT 2520
 15 CTAAGATTGA TCCACATTTT TACTGTAAGC AGAAACTTAG GACCCAGAT TATAATGCTG 2580
 CAGAGGATGC TGATCGATGT GTTCTTCTTC CTGTTCTCTT TTGCGGTGTG GATGGTGGCC 2640
 TTTGGCGTGG CCAGGCAAGG GATCCTTAGG CAGAATGAGC AGCGCTGGAG GTGGATATTC 2700
 CGTTCGGTCA CTACGAGCC CTACCTGGCC ATGTTGGGCC AGGTGCCGAG TGACGTGGAT 2760
 GGTACCACTG ATGACTTTGC CCACTGCACC TTCACCTGGA ATGAGTCCAA GCCACTGTGT 2820
 20 GTGGAGCTGC ATGAGCACAA CCTGCCCCGG TTCCCGAGT GGATCACCAT CCCCCTGGTG 2880
 TGCATCTACA TTTTATCCAC CAACATCCTG CTGGTCAACC TGCTGGTCCG CATGTTTGGC 2940
 TACACGGTGG GCACCGTCCA GGAGAACAA T GACCAAGTCT GGAAGTCCA GAGGTACTTC 3000
 CTGGTGCAGG AGTACTGTCAG CCGCTCAAT ATCCCTTCC CCTTCATGCT CTTCGCTTAC 3060
 TTCTACATGG TGTGCAAGAA GTGCTTCAAG TGTGCTGCA AGGAGAAAAA CATGGAGTCT 3120
 25 TCTGCTGCTT GTTTCACAAA TGAAGACAAT GAGACTCTGG CATGGGAGGG TGTGATGAAG 3180
 GAAACTACCT TTGTCAGGAT CAACACAAA GCCAAGACA CCTCAGAGGA AATGAGGCAT 3240
 CGATTAGAC AACTGGATAC AAAGCTTAAT GATCTCAAGG GTCTTCTGAA AGAGATTGCT 3300
 AATAAATCA AATGA

30 Seq ID NO: 566 Protein sequence
 Protein Accession #: Eos sequence

1 11 21 31 41 51
 35 MSFRAARLEM ENRRNDTLDL TETLYSSASR STDLYSESD LVNFIQANFK KRECFFTKD 60
 SKATENWCKC GYAQSQHMEG TQINQSEKWN YKXETKEFPT DAFGDIQFET LGKKGKYIRL 120
 SCOTDABILY EMLTQHWHLK TPNLVISVTG GAKNFALKPR MRKIFSRLIY IAQSKGANIL 180
 TGGTHYGLMK YLGEVVRDNT ISRSSEENTV AIGIAAWGMV SNRDLIRNC DARGYFLAQY 240
 LMDDFTRDPL YLIDNNHHLK LLVDNGCHGH PTVEAKLRNQ LEKYISERTI QDSNYGGKIP 300
 40 IVCPAQGGGK ETLKALNTSI KKKIPCVVVE GSGQIADVLA SILVEDEALT SSAVKEKLV 360
 FLPTVTGRLP ERETSEWIKW LKXILECSHL LTVIKMEAG DEIVSNAISY ALYKAFSTSE 420
 QDKDNWNGQL KILLEWNLID LANDEIFTND RRVESADLQE VMFTALIKDR PKFVRLFLZN 480
 GLNLRLKFLTH DVLTELPSPNH FSTLVYRNLQ IARNSYNDAL LTFVVKLVAN FERGFRKEDR 540
 NGREMDLIEL HDVSPITREP LQALFIWAIL QNKKELSKVI WQTRGCTLA ALGASKLKT 600
 45 LAKVKNDINA AGESSEELANE YETRAVELEF ECVSEDEDLA EQLLVYSCEA WGGNCLELA 660
 VERADQHFIA QGVQVNFLEK QWYGEISRDY KWKILILCLP IIPLVGCGFV SFRKKPVDKH 720
 KKLWYTVAP FTSPPVVFWS NVVFXIAPLL LEAVVLLMDF HSPVHPPELV LYSLVFVLEF 780
 DEVRQWVNG VNYFTDLWNV MDTLGLFYFI AGIVFRLESS NKSSLYSGRV IFCLDYIIFT 840
 LRLJHIFTVS RNLGPKIIML QRLIDVFPFF LFLFAVWMA FGVARQGIIL QREQRRWIF 900
 50 RSVIYESPLA MFGQVPSLDV GTTYDFAHCT FTGNESKPLC VELDEHNLPR FFEWITIPLV 960
 CIYMLSTNLL LVNLLVAMPG YTVGVQENN DQVWKQRYF LVQEVCSRNL IFFEFIVSAY 1020
 FYMVVKCKFK CCKCKKNMBS SVCCFKNEDN ETLANEGVMK ENYLVKINTK ANDTSEEMRH 1080
 RFRQDITKLN DLKGLLKEIA NKIK

55 Seq ID NO: 567 DNA sequence
 Nucleic Acid Accession #: NM_006911.1
 Coding sequence: 1..558

1 11 21 31 41 51
 60 ATGCCTGCC TETCTTGTT CCACCTGCTA GAATCTGTT TACTACTGAA CCAATTTTCC 60
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 CGCGCGCAGA TTGCCATTTC CGGCATGAGC ACCTGGAGCA AAGGTTCTCT GAGCCAGGAA 180
 65 GATGCTCTCT AGACACCTAG ACCAGTGGCA GAAATTGTAC CATCCTTCAT CAACAAAGAT 240
 ACAGAACTCA TAATTATCAT GTTGGAAATC ATTGCTAATT TGCCACCGGA GCTGAAGGCA 300
 GCCCTATCTG AGAGGCAACC ATCATTACCA GAGCTACAGC AGTATGTACC TGCATTAAAG 360
 GATTCCATTC TTAGCTTTGA AGAATTTAAG AAACCTATTC GCAATAGGCA AAGTGAAGCC 420
 GCAGACAGCA ATCCTTCAGA ATTAAATAC TTAGGCTTGG ATACTCATTC TCAAAAAAAG 480
 70 AGACGACCCCT ACGTGGCACT GTTTGAGAAA TGTTCCTTAA TTGTTGTATC CAAAGGCTCT 540
 CTGTCTAAT ATTGCTGA

75 Seq ID NO: 568 Protein sequence
 Protein Accession #: NP_008842.1

1 11 21 31 41 51
 75 MPRLFLPHLL EFCILLNQPS RAVAAKWKDD VIKLGGREL V RAQLAICGMS TWSKRLSQE 60
 DAPQTPRPVA EIVPSFINKD TETIIIMLEF IANLPPELKA ALSEBRQSLP ELQYYVPALK 120
 80 DSNLSFEERFK KLIRNRQSEA ADENPSELKY LGLDTESQKK RRPYVALFEK CCLIGCTKRS 180
 LAKYC

Seq ID NO: 569 DNA sequence
 Nucleic Acid Accession #: XM_036453.1

Coding sequence: 1..3978

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1      11      21      31      41      51
5      |      |      |      |      |
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CGCGTGTTCI TCTGGTGGCT CAATCCCTTG TTTAAATTE GCCATAACG GAGATTAGAG 120
GAAGATGATA TGTATTCACT GCTGCCAGAA GACCGCTCAC AGCACCCTGG AGAGGAGTTG 180
CAAGGGTTCT GGGATAAAGA AGTTTAAAGA GCTGAGAATG ACGCACAGAA GCCTTCTTTA 240
ACAAGAGCAA TCAIAAAGTG TTAAGTGAAG TCTTATTAG TTTTGGGAAT TTTTACGTTA 300
ATTGAGGAAA GTGCCAAAGT AATCCAGCCC ATATTTTGG GAAAAATTAT TAATTATTTT 360
GAAATTTATG ATCCCATGGA TTCTGTGGCT TTGAACACAG CGTACGCCCTA TGCCACGGTG 420
CTGACTTTTT GCACGCTCAT TTTGGCTATA CTGCATCACT TATATTTTFA TCACGPTCAG 480
TGTGCTGGGA TGAGGTTAGG AGTAGCCATG TGCCATATGA TTATCGGAA GGCACCTCGT 540
CTTAGTAACA TGGCCATGGG GAAGACAACC ACAGGCCAGA TAGTCAATCT GCTGTCCAAT 600
GATGTGAACA AGTTTATCAT GGTGACAGTG TTCTTACACT TCCTGTGGGC AGGACCACTG 660
CAGGCGATCG CAGTGACTGC CCTACTCTGG ATGGAGATAG GAATATCGTG CCTTGTCTGG 720
ATGGCAGTTC TAATCATTCT CCTGCCCTTG CAAAGCTGTT TGGGGAAGTT GTTCTCATCA 780
CTGAGGAGTA AACTGCAAC TTTCAAGGAT GCCAGGATCA GCACCATGAA TGAAGTTATA 840
ACTGTATATA GGAATAAATA AATGTACGCC TGGGAAAAGT CATTTTCAA TCTTATTACC 900
AATTTAGAAA AGAAGGAGAT TTCCAAGATT CTGAGAAGTT CCTGCCCTCAG GGGGATGAAT 960
TTGGCTTCGT TTTTCACTGC AAGCAAAATC ATCGTGTGTT TGACCTTCAC CACCTAOGTG 1020
CTCCTCGCCA GTGTGATCAC AGCCAGCCGC GTGTTCGTGG CAGTGACGCT GTATGGGGCT 1080
GTGCGGCTGA CGGTACCTCT CTCTTCCGCC TCAGCCATG AGAGGGGTGC AGAGGCAATC 1140
GTCAAGCATC GAAGATCAC GACCTTTTGG CTACTGTATG AGATATCACA GCGCAACCGT 1200
CAGCTGCGGT CAGATGGTAA AAGATGGTGC CATGTGCAGG ATTTTACTGC TTTTGGGAT 1260
AAGGCATCAG AGACCCCAAC TCTACAAGGC CTTCCTTTA CTGTGAGACC TGGGCAATTG 1320
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Seq ID NO: 570 Protein sequence
 Protein Accession #: XP_036453.1

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| 10 | LDFIQTLQV | VGVSVAVAV | IPNIAIPLVF | LGIIIFIPLRR | YFLETSRDVK | RLESTTRSPV | 900 |
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| 35 | TGGGATGAGG | TTAAGAGTAG | CCATGTGCCA | TATGATTAT | CGGAAGGCAC | TTGCTCTTAG | 660 |
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CATACTCTTC TTCAACCCG GCCATGTCTG ACCCAATCG GCCACCATGT CGCAAGAATG 1200
ATGATGACAG CAGCTTTGTA GATGGAACCA CCAACGGTGG TGCTTGTGAC AGCCTACCTG 1260
GAGGGATGCA AGACTTCAAT TACCTTAGCA GCACTGTTT TGAGATCACC GTGGAGCTTA 1320
GCTGTGAGAA GTTCCCACTT GAGAGACTC TGAAGACCTA CTGGGAGGAT AACAAAAACT 1380
CCCTCATTTG CTAACCTTAG CAGATACACC GAGGAGTTAA AGGATTTGTC CGAGACCTTC 1440
AAGGTAACCC AATTGCGAAT GCCACCATCT CCGTGGAGGG AATAGACCAAC GATGTTACAT 1500
CGCAAGAGGA TGGGTATTAC TGGGATGTC TTATACCTGG AAACATATAA CTTACAGCCT 1560
CAGCTCCAGG CTATCTGGCA ATACCAAGAA AAGTGGCAGT TCCTTACAGC CCTGCTGCTG 1620
GGGTGATTTT TGAACCTGAG TCATTTTCTG AAGGGAAGAA AGAGGAGAGG GAAGAATTGA 1680
TGGAAATGGT GAAATATGAT TCAGAAACIT TAAATTTTAA AAAAGGCTTC TAGTTAGCTG 1740
CTTAAATCTT ATCTATATAA TGTAGTATGA TGTAAATGAG TCTTTTCTTT AGATTTTGTG 1800
CAGTTAATAC TTAACATTGA TTTATTTTAT AATCATTTAA ATATTATACA ACTTCTCTTA 1860
AATTAATAG CCTCTTAGGT AAAATATATA GAACCTGATA TATTTCAATC TCTTATATAG 1920
TATTCATTTT CTAACCTATA TTACACAAAA AAGTATAGAA AAGATTTAAG TAATTTTGCC 1980
ATCCTAGGCT TAAATGCAAT ATTCTTGCTA TTATTTACAA TGCAGAAATT TTTGAGTAAT 2040
TCTAGCTTTC AAAAATTAGT GAAGTTCTTT TACTGTAAAT GGTGACAAAT TCACATAATG 2100
AATGCTATTG AAAAGGTTAA CAGATACAGC TCGGAGTTGT GAGCACTCTA CTGCAAGACT 2160
TAAATAGTTC AGTATAAATT GTCGTTTTTT TCTGTGCTG ACTAAGTATA AGCATGATCT 2220
TGTTAATGCA TTTTGTAGG GAAGAAAGAG TACATGTTTA CAAAGAGGTT TTAAGAAAAG 2280
AATAAAATTT GACTTCTTGC TTGTACATAT AGGAGCAATA CTATTATATT ATGTAGTCCG 2340
TTAACCTAC TTAAAGTTT AGGGTTTCT CTGTGTTGTA GAGTGGCCCA GAATTGCATT 2400
CTGAATGAAT AAGGTTTAAA AAAAATCCC CAGTAAAAA AAA

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Seq ID NO: 576 Protein sequence
Protein Accession #: NP_001864.1

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MAGGGGALL ALGALAAAG WLLGABAEQEP GAPAGMRRR RRLQEDGDS FEYHRYPELR 60
EALVSVLQC TALSRIYTVG RSEFGRELIV IELSDNPGVH EPGEPFXYI GNMHGNEAVR 120
RELILFLAQY LCNEYQKQNE TIVNLHSTR IHMPSLNPD GFEKAAEQPS ELKDFVVRG 180
NAQGLDNRN FFDLDRIVYV NEKEGGPNMH LLKMKKIVD QNTKLAPETK AVIRHIMDIP 240
FVLSANLEGG DLVANYFPYDE TRSGSAEYFS SSPDAIFQS LARAYSSFPN AMSDENRPPC 300
RKNDDBSFV DGTITGGAWY SVPGSMQDFN YLSNCFEIT VKLSCEKFPF EETLKYWED 360
NKNSLISYLE QIERGVKGFV RDLQGNPIAN ATISVEGIDH DVTSAGDGY WRLIPGVNYK 420
LTASAPGYLA IITKGVVPPS PAAGVDPELE SFSEKKEEEK EELMEWWMKM SETLNF

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Seq ID NO: 577 DNA sequence
Nucleic Acid Accession #: Eos sequence
Coding sequence: 1..933

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TTGACACAGA GTGATGAGAA GGAGTGGCCC AAGGCTAAGT CGAAATGTGG CCGGACCTTC 120
TTCCCTGTG CCGGCGGCAT CCAATGCATC ATTGGTCBCT TCCGGTGCAA TGCGTTTGAG 180
GACTGTCCCG ATGGCAGCGA TGAAGAGAAC TGCACAGCAA ACCCTCTGCT TTGCTCCACC 240
GCCCGCTACC ACTGCAAGAA CGGCTCTGCT ATTGACAGA GCTTCACTCG CGATGGACAG 300
AATAACTGTC AAGACAACAG TGATGAGGAA AGCTGTGAAA GTTCTCAGA ACCCGGCACT 360
GGGCAAGGTT TTGTGACTTC AGAGAACCAA CTGTGTATT ACCCGAGCAT CACCTATGCC 420
ATCATGCGCA GCTCCGTCAT TTTGTGCTG GTGGTGGCCC TGCTGGCAGT GGTCTTGAC 480
CAGCAGCGGA AGCGGAACAA CCTCATGAGC CTGGCGGTGC ACCGGCTGCA GCACCTCTGT 540
CTGCTGTGCC CTTGTGTGGT CTTGACCCAC CCCACCACT GCAACGTGAC CTACACGCTC 600
AATAATGSCA TCCAGTATGT GGCAGCCAG GCGAGSCAGA ATGCGTCTGA AGTAGGCTCC 660
CCACCTCTCT ACTCGAGGC CTGTCTGGAC CAGAGGCGCT CGTGGTATGA CCTTCTCTCA 720
CCGCCCTACT CTTCTGACAC GGAATCTCTG AACCAAGCCG ACCTGCCCCC CTACCGCTCC 780
CGGTCCGGGA GTGCCAACAG TGCCAGCTCC CAGGCAGCCA GCAGCTCTCT GAGCGTGGAA 840
GACACCAAGC ACAGCCCGGG GCAGCTTGGC CCCCAGGAGG CCACTGCTGA GCCCAGGAC 900

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TCTGAGCCCA GCCAGGGCAC TGAAGAAGTA TAA

Seq ID NO: 578 Protein sequence
 Protein Accession #: Eos sequence

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|-------------|------------|------------|------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | |
| MCSNGRCIPG | AMQCDGLPDC | FDKSDKEKCP | KAKSKOGPTF | FPCASGIHCI | IGRFRNGPFE | 60 |
| DCPDGSDDEEN | CTANPLLCST | ARYHCKNGLC | IDKSPICDGQ | NNQDNDSDDE | SCBSSQEPGS | 120 |
| GQVFTSDEEN | LVVYPSITYA | IIGSSVIFVL | VVALLALVLH | HQRKRNMLMT | LPVHRLQHPV | 180 |
| LLSRVLVLH | PHCNVNTYV | NNGIQYVASQ | AEQNASEVGS | PPSYSEALLD | QRPAMYDLFP | 240 |
| PPYSSDTESL | NQADLPYRS | RSGSANSASS | QAASSLLSVE | DTSHSPQPG | PQEGTAEPRD | 300 |
| SEPSQGTREV | | | | | | |

Seq ID NO: 579 DNA sequence
 Nucleic Acid Accession #: AF179274.1
 Coding sequence: 1..1125

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| ATGGTGCTGT | GGGAGTCCCC | GCGGCAGTGC | AGCAGCTGGA | CACTTTGCGA | GGGCTTTTGC | 60 |
| TGGCTGCTGC | TGCTGCCCGT | CATGCTACTC | ATCGTAGCCC | GCCCGGTGAA | GCTCGCTGCT | 120 |
| TTCCCTACCT | CCTTAAGTGA | CTGCCAAACG | COCACCGGCT | GGAATTGCTC | TGGTTATGAT | 180 |
| GACAGAGAAA | ATGATCTCTT | CCTCTGTGAC | ACCACACACT | GTAAATTGTA | TGGGGAAATGT | 240 |
| TTAAGAATTG | GAGACACTGT | GACTTGGGTC | TGTCAGTTCA | AGTSCAACAA | TGACTATGTG | 300 |
| CCTGTGTGTG | GCTCCATGGG | GGAGAGCTAC | CAGAATGAGT | GTTACCTGGG | ACAGGCTGCA | 360 |
| TGCAAAACAG | AGAGTGGAGT | ACTTGTGGTG | TCAGAAGGAT | CATGTGCCAC | AGATGCAGGA | 420 |
| TCAGGATCTG | GAGATGGAGT | CCATGAAGGC | TCGGGAGAAA | CTAGTCAAAA | GGAGACATCC | 480 |
| ACCTGTGATA | TTTGCCAGTT | TGGTGCAGAA | TGTGACGAA | ATGCCGAGGA | TGTCTGGTGT | 540 |
| GTGTGTAATA | TGACTGTTC | TCAAACCAAC | TTCAATCCCC | TCTGCGCTTC | TGATGGGAAA | 600 |
| TCTATGATA | ATGCATGCCA | AATCAAAGAA | GCATCGTGTC | AGAAACAGGA | GAAATTTGAA | 660 |
| GTCTGTCTCT | TGGGTGATG | TCAGATAAC | ACAACCTACAA | CTACTAAGTC | TGAAGATGGG | 720 |
| CATTATGCAA | GAACAGATTA | TGCAGAGAAT | GCTAACCAAT | TAGAAGAAAG | TGCCAGAGAA | 780 |
| CACCAATATC | CTTGTCCGGA | ACATTACAA | GGCTTCTGCA | TGCATGGGAA | GTGTGAGCAT | 840 |
| TCTATCAATA | TGCAGGAGCC | ATCTTGCAAG | TGTGATGCTG | GTATATCTGG | ACAACACTGT | 900 |
| GAAGAAAGAG | ACTACAGTGT | TCTATACGTT | GTTCGCCGTC | CTGTACGATT | TCAGTATGTC | 960 |
| TTAATGCGAG | CTGTGATTGG | AACAATTGAG | ATTGCTGTCA | TCGTGTGGGT | GCTCCTCTGC | 1020 |
| ATCACAAGGA | AATGCCCCAG | AAGCAACAGA | ATTACAGAC | ACAAGCAAAA | TACAGGGCAC | 1080 |
| TACAGTTTCA | ACAATACAA | AAGAGGCTCC | ACGAGGTTAA | TCTGA | | |

Seq ID NO: 580 Protein sequence
 Protein Accession #: NP_057276.2

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|------------|------------|------------|-------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | |
| MVLWESPRQC | SSWTLCEGFC | WLLLLPVMML | IVARPVKLAA | FPTSLSDCOT | PTGMNCSGYD | 60 |
| DRENDLFLCD | TNTCKFDGEC | LRIGDTVTVC | QPKCNNDYV | PVCGSNGESY | QNECYLRQAA | 120 |
| CKQQSEILIV | SEGSCTADAG | SGSGDGVHEG | SGETISQKETS | TCDIQPGAE | CDEDAEDVWC | 180 |
| VCMIDCSQTN | FNELCASDGS | SYDNACQIKE | ASQKQKELK | VMSLGRQDN | TTTTTKSEDG | 240 |
| HYRTDYAKN | ANKLEBSARE | HHIPCEHYN | GFCMHGKCEH | SINMQEPSCR | CDAGYTGQHC | 300 |
| EKKQYSVLYV | VPGPVRPQYV | LIAAVIGTIQ | IAVICVVVLC | ITRKCPRENR | IHRQKQNTGH | 360 |
| YSDNTYTRAG | TRLI | | | | | |

Seq ID NO: 581 DNA sequence
 Nucleic Acid Accession #: S78203.1
 Coding sequence: 1..2190

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| ATGAATCCTT | TCAGAAAAA | TGAGTCCAG | GAAACTCTTT | TTTCACCTGT | CTCCATTGAA | 60 |
| GAGGTACCA | CTGCAACACC | TAGCCCTCCA | AAGAAGCCAT | CTCCGACAAT | CIGTGGCTCC | 120 |
| AACATCCAC | TGAGCATTGC | CTTCATTGTC | GTGAATGAAT | TCTGCGAGCG | CTTTTCTTAT | 180 |
| TATGGAATGA | AAGCTGTGCT | GATCCTGTAT | TTCCTGTATT | TCTGCGACTG | GAATGAAGAT | 240 |
| ACCTCCACAT | CTATATACCA | TGCCCTCAGC | AGCCTCTGTT | ATTTTACTCC | CATCCTGGGA | 300 |
| GCAGCCATTG | CTGACTCGTG | GTTGGGAAAA | TTCAAGACAA | TCATCTATCT | CTCCTTGGTG | 360 |
| TATGTGCTTG | GCCATGTGAT | CAAGTCTCTG | GGTGCCCTAC | CAATACTGGG | AGGACAAGTG | 420 |
| GTACACACAG | TCCATTCATT | GATCGGCTTG | AGTCTAATAG | CTTTGGGGAC | AGGAGGCATC | 480 |
| AAACCCCTGTG | TGGCAGCTTT | TGGTGGAGAC | CAGTTTGAG | AAAAACATGC | AGAGGAACGG | 540 |
| ACTAGATACT | TCTCAGICTT | CTACCTGTCC | ATCAATGCAG | GGAGCTTGAT | TCTTACATTT | 600 |
| ATCACACCCA | TGCTGAGAGG | AGATGTGCAA | TGTTTGGAG | AAGACTGCTA | TGCATTGGCT | 660 |
| TTTGGAGTTC | CAGGACTGCT | CATGGTAATT | GCATCTGTTG | TGTTTGCAAT | GGGAGGCAAA | 720 |
| ATATACAAATA | AACCAACCCC | TGAAGGAAAC | ATAGTGGCTC | AAGTTTTCAT | ATGTATCTGG | 780 |
| TTTGCTATTT | CCAATCGTTT | CAAGAACCGT | TCTGGAGACA | TTCCAAAGCG | ACAGCACTGG | 840 |
| CTAGACTGGG | CAGCTGAGAA | ATATCCAAAG | CAGCTCATT | TGGATGTAAA | GGCACTGACC | 900 |
| AGGGTACTAT | TCTTTTATAT | CCCATTTGAT | ATGTTCTGGG | CTCTTTTGA | TCAGCAGGGT | 960 |
| TCAGATGGA | CTTTCGAGC | CATCAGGATG | AATAGGAATT | TGGGGTTTTT | TGTGCTTCAG | 1020 |
| CCGAGCCAGA | TGCAGGTTCT | AAATCCCTTT | CTGGTTCTTA | TCTTCATCC | GTGTTTGAC | 1080 |
| TTTGCTATTT | ATGATCTGGT | CTCCAGTGT | GGAATTAAT | TCTCATCACT | TAGGAAAATG | 1140 |
| GCTGTTGGTA | TGATCCTAGC | GTGCTTGGCA | TTTGCACTTG | CGGCAGCTGT | AGAGATAAAA | 1200 |
| ATAAATGAAA | TGCCCCCAGC | CCAGTCAGGT | CCCCAGGAGG | TTTTCTTACA | AGTCTTGAA | 1260 |
| CTGCGAGATG | ATAGAGGTGAA | GGTGACAGTG | GTGGGAAATG | AAAACAATTC | TCTGTTGATA | 1320 |
| GAGTCCATCA | AACTCTTTCA | GAAAAACCCA | CACATTTCCA | AACCTGCACT | GAAAAACAAA | 1380 |
| AGCCAGGATT | TTCATTTCCA | CCTGAAATAT | CACATTTGT | CTCTCTACAC | TGAGCATTCT | 1440 |
| GTGCGAGAGA | AGAATCTGTA | CAGTCTTGT | ATTCGTGAAG | ATGGGAACAG | TATCTCCAGC | 1500 |

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ATGATGGTAA AGGATACAGA AAGCAAAACA ACCAATGGGA TGACAACCGT GAGGTTTGT 1560
 AACACTTTGC ATAAAGATGT CAACATCTCC CTGAGTACAG ATACCTCTCT CRAITGTTGT 1620
 GAAGACTATG GTGTGTCTGC TTATAGAACT GTGCAAGAG GAGAATACCC TGCAGTGAC 1680
 TGTAGAACAG AAGATAGAA CTTTTCTCTG AATTGGGTC TTCTAGACTT TGGTGACGA 1740
 TATCTGTTTG TTATTACTAA TAACACCAAT CAGGGTCTTC AGGCCTGGAA GATTGAAGAC 1800
 ATTCAGCCA ACAAAATGTC CATTGCGTGG CAGCTACCAC AATATGCCCT GGTACAGCT 1860
 GGGGAGGTCA TGTCTCTGT CACAGGTCTT GAGTTTCTT ATTCTCAGGC TCCCTCTAGC 1920
 ATGAAATCTG TGTCTCAGGC AGCTTGGCTA TTGACAATTG CAGTTGGGAA TATCATCTG 1980
 CTGTGTGTGG CACAGTTCAG TGGCCTGGTA CAGTGGGCG AATTCAATTT GTTTCTCTGC 2040
 CTCCTGCTGG TGATCTGCTC GATCTCTCTC ATCATGGGCT ACTACTATGT TCCTGTAAAG 2100
 ACAGAGGATA TGCCGGGTCC AGCAGATAAG CACATTCCTC ACATCCAGGG GAACATGATC 2160
 AAACAGAGA CCAAGAGAC AAAACTCTGA

Seq ID NO: 582 Protein sequence
 Protein Accession #: AAB34388.1

1 11 21 31 41 51
 MNPFQXNBSK BTLFSFVSIE EVFPPRPPSP KKPSPPTICGS NYFLSIAFIV VNRFCERFSY 60
 YGMKAVLLLY FLYFLAHMED TSTSIYHAFS SLCYFTPILG AALADSWLKG FKTIYLSLV 120
 YVLGEVIKSL GALPILGGQV VHTVLSLIGL SLIALGTGGI KPCVAAFQGD QFEEKHAEER 180
 TRYFSVFLYS INAGSLISTF ITPMLRGDVQ CPGEDCYALA FGVPGLLMVI ALVVFMAGSK 240
 IYNKPPPPGN IVAQVFKCIW FAISNRPKNR SGDIPKQHW LHWAAEKYPK QLIMDVKALT 300
 KVLFLYILPL MFWALLDQGG SRWTLQALRM NRNLGFFVLQ PDQMQLNPF LVLIFIFLFD 360
 FVIYRLVSKC GINFSRLRM AVGMILACLA FAVAAAEIK INEMABAQSG PQEVLQVLN 420
 LADDEVKTVV GVNNNSLLI ESIKSPQKTP HYSKHLKTK SQDFHPLKY HNLSTYSHS 480
 VQEKMYSLV IRENGSISB MMYKDTBSKT TNGMTTVRFV NTLHKDVNIS LSTDTSLNV 540
 KDVGYSAVRT VQGEYPAVH CRTEDKNFSL NLGLLDGAA YLFTVNTNT QGLQAWKID 600
 IPANMSIAW QLPQYALVTA GEVMPFVTGL EFSYSQAPSS MKSVLQAALW LTIAGNIIV 660
 LVVAQFSGLV QWAEFILFSC LLLVICLIYS IMGYVVPVK TEDMRGFADK HIPHIQNMNI 720
 KLETRKTKL

Seq ID NO: 583 DNA sequence
 Nucleic Acid Accession #: NM_032642.1
 Coding sequence: 184..1263

1 11 21 31 41 51
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 ACAGAGGGAA CCTACTCTG GAAACTGTCA GTCCAGGGC ACTGGGGAGG GCTGAGCCG 180
 ACCATGCCCA GCGTGTCTGT GCTGTTCACG GCTGCTCTGC TGTCCAGCTG GCGTCAGCTT 240
 CTGACAGAGC CCAACTCTG GTGGTCATTA GCTTTGAACC CGGTGCAGAG ACCCGAGATG 300
 TTTATCATCG GTGCCCCGCC CGTGTGCAGT CAGCTTCCCG GCGTCTCCCC TGGCCAGAGG 360
 AAGCTGTGCC AATTGTACCA GGAGCAGATG GCCTACATAG GGGAGGGAGC CAAGACTGGC 420
 ATCAAGGAAT GCCAGCACCA GTTCCGCGAG CGCCGGTGGG ATTGCAGCAC AGCGGACAA 480
 GCATCTGTCT TTGGGAGAGT CATGCAGATA GGCAGCCGAG AGACCGCCTT CACCCACGG 540
 GTGAGCGCGC CGCGGGTGGT CAACGCCATC AGCCGGGCGT GCCGCGAGGG CGAGCTCTCC 600
 ACCTGCGGCT GTGCCCCGCC GCGCGCGGCC AAGGACCTGC CCGCGGACTG GCTGTGGGAC 660
 GCGTGTGGGG ACAACGTGGA GTACGGCTAC CGCTTCGCCA AGGAGTTTGT GGATGCCCGG 720
 GAGCGAGAGA AGAACTTTGC CAAGGATCA GAGGAGCAGG GCGCGGTGCT CATGAACCTG 780
 CAAACAAAGC AGGCGCGTGC CAGGGCTGTG TATAAGATGG CAGAAGTAGC CTGCAATGC 840
 CAOGGCGTCT CGGGGTCTG CAGCCTCAAG ACCTGCTGGC TGCAGCTGGC CGAGTTCCGC 900
 AAGGTCCGGG ACCGCTGGA GGAGAAATAC GACAGCGCGG CGCCCATGCG CGTCAACCGC 960
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 CAGGGCCGCC TCTGCAACAA GACCTCGGAG GGCATGGATG GCTGTGAGCT CATGTGCTGC 1140
 GGGGTGTGCT ACAACCAATT CAGAGCGGTG CAGGTGGAGC GCTGCCACTG CAAGTTCCAC 1200
 TGGTCTCTCT TCGTCAAGTC TAAGAAATGC ACGGAGATCG TGAACCAATA CATCTGTAAA 1260
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 GAGGACTCTC AGGATGTAGG GACTTGGAAA TATTACTGT CTGTCCACCA CGGCGTGGAG 1560
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 GTTAGAGGAC TGCTGTGAT CCTGGCCACT AGGCCAAGAG GCCCATGAA GGTGGCGGGA 1680
 ACTCAGCTTC AACCTCGATG TCTTCAGGGT CTGTCCAGTA ATGTAGATGG GTTCCGTAG 1740
 AGGCCCTGGT CTCTCTTACT CTTTCTATCA CGTGCACTTG TGCGGCATCT GCAGTTTACA 1800
 GGAACGGCTC CTTCCCTAAA ATGAGAAGTC CAAGGTCTAT TCTGGCCAG TGAACACAGA 1860
 GAGATCTGCA CCTCCCGGAC TTCAGGCTTG CCTTCCAGC GAGAAATCTT CATCTCCAC 1920
 GGTTCACTAG CTCTTACTG AAGAGGAAG GGGGCCATTT GACCTGACAT GTCCAGAAAG 1980
 CCTAAACAG AATGTTTGGC CCGGGCTGTC AGAAGCCAGG GTGCATGACC AGGCTGCGTG 2040
 GACGTTATAC TGTCTTCCCC CACCCCGGGG GAGGGGAAGC TTGAGCTGCT GCTGTCACTC 2100
 CTCACCGGAG TGGAGGCTCA CAACACACAG GAOGCTGCAG CCGGTCAAGG TGGCGGGCCC 2160
 GGCCTGCTCA TCATCTCTGC CCCAGGTGTA CGGTTTCTCT CTGACATTAA ATGCCCTTCA 2220
 TGGAAAAAAA AAAAAGAAAA AAAAAAAAAA AA

Seq ID NO: 584 Protein sequence
 Protein Accession #: NP_116031.1

1 11 21 31 41 51
 MPBLLLLLFTA ALLSSWAQLL TDANSWWSLA LNPVQRPEMF IIGAQPVCSSQ LFGLSPGQRK 60
 LQQLYQEHMA YIGGAKTGI KBCQHQPBR RNNCSTADNA SVFGRVMIG SRETAFTHAV 120

SAAGVVNAIS RACREBELST CGCSRTARFK DLPRDWLWGG CGDNVEYGYR FAKSFVDARE 180
 REKNEAKGSE EQGRVLMNLQ MNEAGRRAVY KMADVACKCH GVSQSCSLKT CWLQIAEFRK 240
 VGDRLKEKYD SAAAMRVTRK GRLELVNSRF TQPTPEDLVY VDPSPDYCLR NESTGSLGTQ 300
 GRLCNKTSSE MDGCELMCCG RGYNQFKSVQ VERCHCKCFHW CCFVRCKKCT EIVDQYICK

Seq ID NO: 585 DNA sequence
 Nucleic Acid Accession #: Bos sequence
 Coding sequence: 1..1479

1 11 21 31 41 51
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 ATGGCTTTGA ACTCAGGGTC ACCACCAGCT ATTGGACCTT ACTATGAAAA CCATGGATAC 60
 CAACCGGAAA ACCCTTATCC CGCACAGCCC ACTGTGTCTC CCACTGTCTA CGAGGTGCAT 120
 CCGGCTCAGT ACTACTCGTC CCCCCTGCCC CAGTAAGCCC CGAGGGTCCT GACGCAAGCT 180
 TCCAAACCCG TCGTCTGCAC CGAGCCCAAA TCCCATCCG GACAGTGTG CACCTCAAAG 240
 ACTAAGAAAG CACTGTGCAT CACCTTGACC CTGGGACCTT TCCTCGTGGG AGCTCGCGTG 300
 GCGCTGGGCC TACTCTGGAA GTTCATGGGC AGCAAGTGCT CCAACTCTGG GATAGAGTGC 360
 GACTCCTCAG GTACCTGCAT CAACCCCTCT AACTGTGTGT ATGGCGTGTG ACACCTGCCC 420
 GCGGGGAGG ACAGGAATCG GTGTGTTCGT CTCTACGGAC CAACCTTCAT CCTTCAGGTG 480
 TACTCATCTC AGAGGAATGC CTGGCACCTT GTGTGCCAAG ACGACTGGAA CGAGAACTAC 540
 GGGCGGGCGG CCTGCAGGGA CATGGGCTAT AAGAATATTT TTTACTCTAG CCAAGGAATA 600
 GTGGATGACA GCGGATCCAC CAGCTTTATG AAACCTGAACA CAAGTGCCGG CAATGTGCAT 660
 ATCTATAAAA AACTGTACCA CAGTGATGCC TGTCTTCTAA AAGCAGTGGT TCTTTACGTC 720
 TGTATAGAGT CGGGGCTCAA CTGGAATCTA AGCCGCCAGA GCAGGATCGT GGGCGGCGAG 780
 AGCGCGCTCC CGGGGCGCTG GCGCTGGCAG CTCAGCTGCG ACGTCCAGAA CGTCCACGTG 840
 TCGGAGGCT CACTCATCAC CCCCAGTGG ATCTGACAG CCGCCCACTG CGTGGAAAAA 900
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 TTCTATGGAG CCGGATACCA AGTAGAAAAA GTGATTTCTC ATCCAAATTA TGACTCCAAG 1020
 ACCAAGAAC AAGACATTCG CTGATGAAAG CTGCAGAACG CTCTGACTTT CAACGACCTA 1080
 GTGAAACAG TGTGTCTGCC CAACCCAGGC ATGATGCTGC AGCCAGAAC GCTCTGCTGG 1140
 ATTTCCGGT GGGGGGCCAC CGAGGAGAAA GGAAGACCT CAGAAGTCTT GAACGCTGCC 1200
 AAGGTGCTTC TCATTGAGAC ACAGAGATGC AACAGCAGAT ATGTCTATGA CAACCTGATC 1260
 ACACCAGCCA TGATCTGTGC CGGCTTCTTG CAGGGGAACG TCGATCTCTG CCAGGGTGAC 1320
 AETGGAGGG CTCTGTCTAC TTCGAAGAAC AATATCTGGT GGCTGATAGG GGATACAAGC 1380
 TGGGATTCG GCTGTGCCAA AGCTTACAGA CCAGGAGTGT ACGGGAATGT GATGGTATTC 1440
 ACGGACGGA TTTATGACA AATGAGGCA CACGGCTAA

Seq ID NO: 586 Protein sequence
 Protein Accession #: Bos sequence

1 11 21 31 41 51
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 MALNSGSPPA IGPYYENEGY QPENFYPAQP TVVFTVYEVH PAQYYPSFVE QYAPRVLTQA 60
 SNFVVCQPK SPGGTCTSK TKKALCITLT LGTFPLVGAAL AAGLLMKFMG SKCNSGIEBC 120
 DSSGTCNPS NWCDGVSECP GGEDENRCVR LYGNFPLQV YSQKSKSHF VCQDDWENY 180
 GRAACRMGY KBNFYSSQGI VDSGSTSEFM KLNTSAGNVD IYKLYHSDA CSSKAVVSLR 240
 CIACGVNLNS SRQSRIVGGE SALPGANFWQ VSLHVGNNHV CGSSIITPEM IYTAACVEK 300
 PLNNFWHTA FMGILRQSFN FYGAGYQVEK VISHPNYDSK TKNNDIALMK LQKPLTFNDL 360
 VKFVCLNPG MMLQPPQLCW ISGWGATEEK GKTSEVLNAA KULLIETQRC NSRYVDNLI 420
 TPAMICAGFL QGVNDSQGD SGGPLVTSKN NIWWLIGDTS WSGGCAKAYR PGVYGNVNVF 480
 TDWLYRQREA DG

Seq ID NO: 587 DNA sequence
 Nucleic Acid Accession #: NM_005656.1
 Coding sequence: 57..1535

1 11 21 31 41 51
 | | | | |
 GTCATATTGA ACATTCCAGA TACCTATCAT TACTOGATGC TGTGATAAC AGCAAGATGG 60
 CTTTGAATCK AGGGTCACTA CCAGCTATTG GACCTTACTA TGAAGAACCA GGATACCAAC 120
 CCGAAACCC CTATCCCGCA CAGCTCCTG TGGTCCCAC TGCTACGAG GTGCATCCGG 180
 CTCAGTACTA CCGCTCCCCC GTGCCCCAGT ACGCCCCGAG GGTCTGAGC CAGGCTTCCA 240
 ACCCGTGGT CTGCACGCA CCCAAATCCC CATCCGGGAC AGTGTGCACC TCRAAGACTA 300
 AGAAGGCACT GTGCATCACC TTGACCTTGG GACCTTCCCT CGTGGGAGCT GCGCTGGCCG 360
 CTGGCTTACT CTGGAAGTTC ATGGGCGACA AGTGTCTCAA CTCTGGGATA GAGTGCAGT 420
 CCTCAGGTAC CTGCATCAAC CCTCTTAAC GTGTGTATGG CGTGTCAAC TGCCCCGGCG 480
 GGGAGGACGA GAATCGGTGT GTTCGCTCT CTGGAACAAA CTTCATCTTT CAGATGTACT 540
 CATCTCAGAG GAAGTCTCTG CACCTGTGT GCCAAGACGA CTGGAACGAG AACTACGGGC 600
 GGGCGGCTG CAGGGACATG GGCTATAAGA ATAAATTTTA CTCTAGCCAA GGAATAGTGG 660
 ATGACAGCGG ATCCACAGC TTTATGAAAC TGAACACAAG TGCCGCAAT GTCGATATCT 720
 ATAAAAACT TACCAACAGT GATGCTGTIT CTTCAAAAGC AGTGTGTTCT TTACGCTGTT 780
 TAGCTTGGG GGTCAACTTG AACTCAGCC GCCAGAGCAG GATCGTGGGC GGTGAGAGCG 840
 CGCTCCCGG GGCCTGGCCC TGGCAGTCA GCCTGCACGT CCAGAACGTC CACGTGTGCG 900
 GAGGCTCAT CATCATCCCC GAGTGGATCG TGACAGCGCG CCACTGCTG GAAAAACCTC 960
 TTAACAATCC ATGGCATTGG ACGGCATTG CGGGGATTTT GAGACAATCT TTCATGTTCT 1020
 ATGGAGCCGG ATACCAAGTA TTTCTCATCC AAATTATGAC TCCAAGACCA 1080
 AGAACAATGA CATTCGCTG ATGAAGCTGC AGAAGCCTCT GACTTTCAC GACCTAGTGA 1140
 AACCAGTGT TCTGCCCAAC CCAGGCATGA TGCTGCAGCC AGAACAGCTC TGCTGGATTT 1200
 CCGGCTGGG GGCACACGAG GAGAAAGGGA AGACCTCAGA AGTGTGAAAC GCTGCCAAGG 1260
 TGCTTCTCAT TGAGACAGAG AGATGCAACA GCAGATATGT CTATGACAA CTGATCACAG 1320
 CAGCCATGAT CTGTGCCGGC TTCTGCAAG GGAACGTCGA TTCTTBCAG GGTGACAGT 1380
 GAGGGCTCT GGTCACTTC AACACAATA TCTGGTGGCT GATAGGGGAT ACAAGCTGG 1440
 GTTCTGGGCT TGCCAAAGCT TACAGACCAG GAGTGTACGG GATGTGTGAT GTATTACAG 1500
 ACTGGATTTA TCGACAAATG AAGGCAACCG GCTAATCCAC ATGGTCTTCT TCCCTGACGT 1560

CGTTTTACAA GAAACAATG GGGCTGGTTT TGCTTCCCGG TGCATGATTT ACTCTTAGAG 1620
 ATGATTACAGA GGTCACTTCA TTTTATTATA ACAGTGAAC TGTCTGGCTT TGGCACTCTC 1680
 TGCCATACTG TGCAGGCTGC AGTGGCTCCC CTGCCAGGCC TGCTCTCCCT AACCCCTTGT 1740
 CCGCAGGGGG TGATGGCCGG CTGGTTGTB3 GCACTGGCGG TCAATTGTGG AAGGAAGAGG 1800
 GTTGGAGGCT SCOCOCATTG AGATCTTCCT GCTGAGTCCT TTCCAGGGGC CAATTTTGA 1860
 TGAGCATGGA GCTGTCACTT CTCAGCTGCT GATGACTTGG AGATGAAAAA GGAGAGACAT 1920
 GGAAGGGGAG ACAGCCAGGT GGCACCTGCA GCGGCTGCCC TCTGGGGCCA CTTGGTAGTG 1980
 TCCCCAGCCT ACTTCACAAG GGGATTTTGC TGATGGGTTT TTAGAGCCCT AGCAGCCCTG 2040
 CATGGTGGCC AGAATAAAG GGACCGGCC TTCTGGGTG GTGACGTGGT AGTCACTTGT 2100
 AAGGGGAACA GAAACATTTT TGTCTTATG GGGTGAAGAT ATAGACAGTG CCGTGGGTGC 2160
 GAGGGAAGCA ATTGAAAAGG AACTTGCCTT GAGCACTCCT GGTGCAAGTC TCCACCTGCA 2220
 CATTGGGTGG GGTCTCTGGG AGGGAGACTC AGCCTTCTCT CTCATCTCTC CTGACCTTGC 2280
 TCCTAGCACC CTGGAGAGTG AATGCCCTT GGTCCCTGGC AGGGGCCCAA GTTTGGCACC 2340
 ATGTCGGCCT CTCAGGCTT GATAGTCATT GGAATTTGAG GTCCATGGGG GAAATCAAGG 2400
 ATGCTCAGTT TAAGGTACAC TGTTCCTAIG TTATGTTTCT ACACATTGAT GGTGGTGACC 2460
 CTGAGTTCAA AGCCATCTT

Seq ID NO: 588 Protein sequence

Protein Accession #: NP_005647.1

20
 1 11 21 31 41 51
 MALNQSPPA LQPYENHGY QPENPYPAQF TVVPTVYEVH PAQYYPSPVF QVAPRVLTGA 60
 SNPVVCTQPK SPSTGTVCTSK TKKALCTILT LGTFLVGAAL AAGLLWKFMG SKCSNSGIEC 120
 DSSGTCINPS NWCDGVSHCP GGEDENRCVR LYGPNFILQM YSSQRKSWHP VQDDWNNENY 180
 GRAACRDMGY KNNFYSSQGI VDDSGSTSFM KLNTSAGNVD IYKLYHSDA CSKAVVSLR 240
 CLACGVNLNS SRQSRIVGGE SALPGAMPWQ VSLHVQNVHV CGGSLITPEW IVTAARCVCK 300
 PLNFWHMTA FAGILRQSPM FYGAGYQVQK VISHENYDSK TKNNIDIALMK LQKPLTFNDL 360
 VKFVCLPNEG MMLQPEQLCW ISGWGATEEK GKTSEVLNAA KVLILITQRC NSRYVYDNL 420
 30 TFAMICAGEL QGNVDSQGD SGGPLVTENN NIWWLIGDTS WSGSCAKAYR PGVYGNVMVF 480
 TDNIYRQMA NG

Seq ID NO: 589 DNA sequence

Nucleic Acid Accession #: NM_001935.1

Coding sequence: 1..2301

35
 1 11 21 31 41 51
 40 ATGAAGACAC CGTGAAGAT TCTCTGGGA CTGCTGGGTG CTGCTGGCTT TGTCCATC 60
 ATCACCTGTC CCGTGGTCTT GCTGAACAAA GGCACAGATG ATGCTACAGC TGACAGTCGC 120
 AAAACTTACA CTCTAACTGA TTACTTAAAA AATACCTATA GACTGAAGTT ATACTCCCTA 180
 AGATGGATTG CAGATCATGA ATATCTCTAC AAACAAGAAA ATAATATCTT GGTATTCAAT 240
 GCTGAATATG GAAACAGCTC AGTTTCTCTG GAGAACAGTA CATTGTATGA GTTTGGACAT 300
 TCTATCAATG ATTATTCAT ATCTCCGAT GGGCAGTTTA TTCTCTAGA ATACAACATC 360
 45 GTGAAGCAAT GGAGGCATTC CTACACAGCT TCATATGACA TTTATGATTT AATAAAGG 420
 CAGCTGATTA CAGAAGAGAG GATTCCAAAC AACACACAGT GGGTCACATG GTACCCAGTG 480
 GGTCAATAAT TGGCATAAT TTGGAACAAT GACATTTATG TTAATAATGA ACCAAATTTA 540
 CCAAGTTACA GAATCACATG GACGGGGAAG GAAGATATAA TATATAATGG AATAACTGAC 600
 TGGGTTTATG AAGAGGAAGT CTTCACTGCC TACTCTGCTC TGTGGTGGTC TCCAAACGGC 660
 50 ACITTTTATG CATATGCCCA ATTTAAAGAC ACAGAACTCC CACTATTTGA ATACTCCCTC 720
 TACTCTGATG AGTCACTGCA GTACCCCAAG ACCTGACGGG TTCCATATCC AAGGCGAGGA 780
 GCTGTGAATC CACTCTTAAA GTTCTTTGTT GTAAATACAG ACTCTCTCAG CTCAGTCACC 840
 AATGCAACTT CCATACAAAT CACTGCTCCT GCTTCTATGT TGATAGGGGA TCACACTCTG 900
 TGTGATGATG TATGGGCAAC ACAAGAAAGA ATTTCTTTGC AGTGGCTCAG GAGGATTCAG 960
 55 AACTATTCCG TCATGATAT TTGAGACTAT GATGAATCCA GTGGAAGATG GAAGTCTTA 1020
 GTGGCAGGGC AACACATTGA AATGAGTACT ACTGGCTGGG TTGGAAGATT TAGGCCCTTA 1080
 GAACCTCAT TACCTTTGA TGGTAATAGC TTCTACAAGA TCATCAGCAA TGAAGAAGT 1140
 TACAGACACA TTGCTATTT CCAATAGAT AAAAAGACT GCACATTTAT TACAAAAGGC 1200
 ACCTGGGAAG CATCGGGAT AGAAGCTCTA ACCAGTGATT ATCTATACTA CATTAGTAAT 1260
 60 GAATATAAAG GATGUCAGG AGGAAGGAAT CTTTATAAAA TCCAACTTAG TACTATACA 1320
 AAAGTGACAT GCCTCAGTTG TGAGCTGAAT CCGGAAGGT GTCACTACTA TTCTGTGTC 1380
 TTCAGTAAG AGCGAAGTA TTATCAGCTG AGATGTTCCG GTCTTGGTCT GCCCTCTAT 1440
 ACTCTACACA CGACGCTGAA TGATAAAGGG CTGAGAGTCC TGGAGACAAA TTCAGCTTTG 1500
 GATAAATGTC TGCAAGATGT CCAGATGCCC TCCAAAAAAC TGGACTTCAT TATTTTGAAT 1560
 65 GAAACAAAAT TTTGGTATCA GATGATCTTG CCTCTCTATT TTGATAAATC CAAGAAATAT 1620
 CCTCTACTAT TAGATGTGTA TGCAGGCCCA TGTAGTCAAA AAGCAGACAC TGTCTTCAGA 1680
 CTGAACCTGG CCACTTACCT TGCAAGCACA GAAAACATTA TAGTAGCTAG CTTTGTATGG 1740
 AGAGGAAGTG GTTACCAGAG AGATAAGATC ATGCTATGCA TCAACAGAAG ACTGGGAACA 1800
 TTTGAAGTTG AAGATCAAAAT TGAAGCAGCC AGACAATTTT CAAAAATGGG ATTGTGGAC 1860
 70 AACAAACGAA TTGCAATTG GGGCTGGTCA TATGGAGGGT ACGTAACCTC AATGGTCTCT 1920
 GGTATCGGGA GTGGCGTGTT CAAGTGTGGA ATAGCCCTGG CGCCTGTATC CCGGTGGGAG 1980
 TACTATGACT CAGTGTACAC AGAAGCTTAC ATGGGTCTCC CAACTCCAGA AGACAACCTT 2040
 GACCATTAACA GAAATCAAC AGTCATGAGC AGAGCTGAAA ATTTTAAACA AGTTGAGTAC 2100
 CTCCTEATC ATGGAACAGC AGATGATAAC GTTCACITTC AGCAGTCAGC TCAGATCTCC 2160
 75 AAAGCCCTGG TCGATGTTGG AGTGGATTTT CAGGCATATG GGTATACAGA TGAAGACCAT 2220
 GGAATAGCTA CGAGCAGAC ACACCAACAT ATATATACCC ACATGAGCCA CTTCATAAAA 2280
 CAATGTTTCT CTTTACCTTA G

Seq ID NO: 590 Protein sequence

Protein Accession #: NP_001926.1

80
 1 11 21 31 41 51
 MKTPWKILLG LGAAALVTI ITVPVVLNKK GTTDAATDSR KTYTLMDYIK NTYRLKLYSL 60

RNISDREYLY KOENNILVFN AEYGNSSVFL ENSTFDEFGH SINDYSISPD GQFILLENY 120
 VKQNRHSYTA SYDIYDLNKR QLITEERIPN NTOWVTWSPV GHKLAYVWNN DIYVKIEPNL 180
 PSYRITWTGK EDITYNGITD WYVEEVFSA YSALWNSENG TFLAYAQFND TEVPLIEYSF 240
 YSDESQYQPK TVRVVPYKAG AVNPTVKFFV VNTDSLSSVT NATSIQITAP ASMLIGDEYL 300
 CDVWATQER ISLQWLRRIQ NYSVMDICDY DESSGRWNCL VARQHLEMT TGWVGGRFPS 360
 EPHFTLDGNS FYKIIISNEG YRHICYFQID KKDCTFITKG TWEVIGYEL TSDYLYYISN 420
 FYKMPGGRN LYKIQLSQYT KVTCLSCBLN PERCQYYSVS FSKEAKYQUL RCSGPGLPLY 480
 TLHSSVNDKG LRVLEDNSAL DKMLQNVQMP SKKLDFFILN ETKFWYQML PPHFDKSKKY 540
 PLLLDVYAGP CSQKADTVFR LNWAYLAST ENITVASFDG RSGGYQGDKI MHAINRRLGT 600
 FEVEDQIEAA RQFSKMGFVD NKRIAIWGS YGGVVTSMVL GSGSGVFKCG IAVAPVERWE 660
 YDVSYYTERY MGLETPEDNL DHYRSTVMS RAENFKQVEY LLINGTADDN VHFQQAQIS 720
 KALVDVGVD FQAMWYDEDH GIASSTARQH IYTHMSHFIX QCFSLP

Seq ID NO: 591 DNA sequence

Nucleic Acid Accession #: NM_016077.1

Coding sequence: 128..667

1 11 21 31 41 51
 TCGCTTTGTG ATTCTTGATC CGGAACCTTG TCACCCAGGA ACCCCGGAAG AGGTAGCTCA 60
 CGCGATAGAA ACGTGTTCGC TTGCCCCAGAA GAAGGGAAGG CGCGAGTGAG GAAAGGAGGT 120
 ACTGTAGATG CCTCCCAAT CCTTGGTTAT GGAATATTG GCTCATCCA GTACACTCGG 180
 CTTCGCTGTT CGAGTTGCTT GTGGCATGTG CTGGGCTGG AGCTTCGAG TATGCTTTGG 240
 GATGCTCCCC AAAAGCAAGA CGAGCAAGAC ACACACAGAT ACTGAAAGTG AAGCAAGCAT 300
 CTTCGGAGAC AGCGGGAGT ACAAGATGAT TCTTGTGGTT CGAATGACT TAAAGATGGG 360
 AAAAGGGAAA GTGGCTGCCC AGTGTCTCA TGCTGCTGTT TCAGCCTACA AGCAGATTCA 420
 AAGAAGAAAT CCTGAAATGC TCAACAATG GGAATACGT GGCAGCCCA AGGTGGTGGT 480
 CAAAGCTCCT GATGAAGAAA CCCTGATTCG ATTATGGCC CATGCAAAA TGCTGGGACT 540
 GACTGTAGT TTAATTCAG ATGCTGGAG TACTCAGATT GCACCAGGCT CTCAAACTGT 600
 CCTAGGGATT GGGCCAGAC CAGCAGACCT AATTGACAAA GTCACTGGTC ACTTAAACT 660
 TTACTAGGTG GACTTTGATA TGACAACAAC CCTCCATCA CAGTGTGTT AAGCCTGTCA 720
 GATTCTAACA ACAAAGCTG AATTCTTCA CCAACTTAA ATGTTCTTGA GATGAAATA 780
 AAACCTATTC CCAATTTCTA AAAAA

Seq ID NO: 592 Protein sequence

Protein Accession #: NP_057161.1

1 11 21 31 41 51
 MPKSLVMEY LARPSTLGLA VGVACGMCLG WSLRVCFGML PKSKTSKTHT DTESEASILG 60
 DSSEYKMLIV VRNDLKMKGK KVAACQSHAA VSAYKQIQR NEMLKQNEY CGQPKVVVKA 120
 PDETLIALL AHAKMLGLTV SLIQDAGRTQ IAPGSQTVLG IGPFPADLID KVTGHLKLY

Seq ID NO: 593 DNA sequence

Nucleic Acid Accession #: FGENESH predicted

Coding sequence: 1..1896

1 11 21 31 41 51
 ATGCGCGCCG TGCGCTGCGC CGCCCGGCTC CTGCGCTGCG TGCTGCTCGC GCTCCTGGCC 60
 GCTCCCGCCG CCGCGCCGAG CAGAGCCGAG TCCGCTCTCG CGCGCTGGCC CGAACCCGAG 120
 CGCGAGTCGC GCGCCCGCGC CGCGCGGAGC CCACCCGCTT TGGGTCTGGG 180
 GCGCGCGCGC GCAGCGGCGC CTCAGCTCC AACAGCASTG GCGACGCTT GGTGACCGCC 240
 ATTTCATCC TCTTCGCGA CCTACCCACC CTCAGGCGAG CGGTGATCGT GCGGTTCGCC 300
 TTTACCAACC TCTCATCGC CTGCTGCTG CTGCGCTGCT TCAGGTGGG AAGAGGTGA 360
 AAGAGACAC GCAGATATGA TATCATCAC ACTCCAGCAG AGCGAGTGA AATGGCGCA 420
 CTAAATGAAG AGGATGATGA AGATGAGGAC TCCACATAT TCACATCAA ATACAGAGT 480
 TCTTGCGCG CCGCATGAG ACGTCAGCTG CCAGGGTGCC AGACGCTACT GACAGTTCT 540
 GTGCCCCAC CCTTCATCCT CGACATTGAC CTTCAGCAA GATGAGTG AAGGCTGAT 600
 GGTGGAATCA GACCTGGTAA AACCTGTTT CCAGCCTGGT GGCATCCTGT GGAAGTTGG 660
 TCAGCTGCAA CCGGGGTGT GAAGGACTGG ACCTGGAAGC CCTCTGCGT CGGAGGTGTT 720
 GAAACCAAAA CGAACCTTAT GTATAAAACC CCAGCTCCAT CGTGGCTGTC AGGCATCTGC 780
 TCACAGCTGC ACTGGCAAGC TCGTTCACG GTCACCAAA TGGAGTTGCT TCTGCCACC 840
 TTTGGGCATC CCTTAAAGT GCGCCCTACT TCTACTCCCC ATGGTTTTCG ACAACTGCAG 900
 CTGAATCTCA TGGAAAGCT GGAATCCTCT GCGTTACGCA GAAACACCCG GGCTCCATCT 960
 GCCAGGTGCT TGCCACTGGT CCGGCGAGAA ATGGCGGCTG CTGAAAGTGA CCTTCCAAAT 1020
 CCTTGGTGGC ACTTCAGCGC CACAGGCTCT CCAATAAAAA CCTTTACAC ACAAAOCATG 1080
 AGTACCTTGG SCTTGGATGT TTCTGTGGT GCGGCGCAGC GGGGCACCTT TTGTGAAGAC 1140
 AGAGCAGTGA CTAAAGTTCT CAGGGTAGC TCTTTCTCCA AACAGCTGCG CTGGAAGCCA 1200
 GCGCTAGAGA GTGGGTTTCC CCATCATCTC AGGCTTCTCA GAGAGTGTCC TCCGCTGAGC 1260
 ACCCATCTTG TCAGGTTGGC TCGTTCAGAT GCGCGGCGAG AAGCCAGCCT GACGGGGAGG 1320
 AGGGTGTTCG GCGCTCCGCG CAGTCTCTG CATGGCGGAG GGTACGGGG TACCGCAACT 1380
 TGCCTTTGG TTTTGAAGAT TCTGTGAGG CGCATCTCT ACCTTGACCT CTCTACAAA 1440
 ATCTGTCTCC CCGCTGTGTC CGTGGAAAC CTAAGGGAAG CTAAGAGAAG CTCAGTGA 1500
 GTCTTGTGCT CATTGAGCA GAGCCACAA AAGGCGAGTG CTGCCACCGG GGAGCCTGTC 1560
 AAAAGAGGCG CAGTGGGCA ATTGACCAGA CACACATGCC CTGGCTGGGG GATCACACAT 1620
 GCGAACCTGC AGACAAATCC AGATACCCAA GCGCAGGAAG GCGCACGTGA GGATGTCACT 1680
 CACCTGTGAG GAGACTTGA TGGGGTGGCA AATTCTATT TGGAGGAAGA GGGTTTCCAG 1740
 GATGGCAGT CCGAGAGAT GGTCTGATG TCTGAGGAAG GCGCACCTAG TTTGACAGGA 1800
 GTTGAAGGCG TCACAGGTTT CCATCACTTC TCCAGCCATT CCAAGTCTTG GTCTTCTCT 1860
 TCCGCCGAG AGCCCTGTT TCTGTCCAG CCTGA

Seq ID NO: 594 Protein sequence

Protein Accession #: FGENESH predicted

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1      11      21      31      41      51
|      |      |      |      |      |
5  MRAPVLPAPL LPLLLLALLA APAARASRAE SVSAPWPEPE RESRPPPGPG PGNTRFPGSG 60
AAGSGSGSSSS NSSGDALVTR ISILLEDLPT LKAAVIVAFa FTTLLIACLB LRVFRSGKRL 120
KKTRKYDIIT TPAERVEMAP LNEEDDEDED STVFDIKYRV SLPAALRRQL PGCQTLLTVP 180
VPPPPFILDID LPARCSGRPD GGIRPGKICYF PAWHPVSVES SAATNGVKDW TWKFSVCVGV 240
ETKTNVMYKT PAPSCVSGIC SDCHNQAREH VTTMELLPP FGHPPKVPPT STPHGFRQLQ 300
10  LNLMEKLDSS ALRRNTRAPS ARCLPLVLAE MAAAESDLN PWHEFSATGS FIKTLYTQTM 360
STLGLDVFQ AGQGTFCED RAVTKVLQSS SFSKQLRWKF ALESPPPHL RLLRECPPLS 420
THPVLRLARS ARQASLTGR RVFRPRQSL EGGSGAGTAT CLLVLKILLR RHPHLDLPYK 480
ICLPCCAVEH LREAKRESVT VLASFQSEFQ KAAAAGHGFV KRGPSPQLTR HTCPGFWGTH 540
ANLQTIPTDQ GQSGPREDVT HPGGLDGVFA NFYLEESGFO DGRCCQKMLVM SEEGPPSLTG 600
15  CERLTGSHHF SSSKSWMSFL SPRQPLFLER P

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Seq ID NO: 595 DNA sequence
Nucleic Acid Accession #: NM_021614.1
Coding sequence: 1..1740

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1      11      21      31      41      51
|      |      |      |      |      |
20  ATGAGCAGCT GCAGGTACHA CGGGGGCGTC ATGCGGCGGC TCAGCAACTT GAGCGCGTCC 60
CGCGCGAACC TGCAAGAGAT GGACTCAGAG GCGCAGCCGC TCAGCCCTCC CGCGTCTGTC 120
25  GGAAGAGGTG CGCGCGCGTC CTCCCGCTCT GCAGCGCGTG CGCGCGCGGC CGCTGTTTCG 180
TCCTCAGCCC CGAGATCGT GGTGTCTAAG CCCGAGCACA ACAACTCCAA CAACCTGGCG 240
CTCTATGAAA CGCGCGCGCG AGGCAGCACT GAGGAGGCG CGCGCGGTGG CGGAGCGCGG 300
CAGCGCAGCA GCAGTGGCAC CAGTCCAGC AAAAAAGAAA ACCAGAACAT CGGTACRAG 360
CTGGGCCACC GGCAGCGCCT GTTCGAAAAG CGCAAGCGGC TCAGCGACTA CGCGCTCATC 420
30  TTCCGCATGT TCAGCATCGT GGTATGGTC ATCGAGACCG AGCTGTCTG GGGCGCTAC 480
GACAGGGCGT CGCTGTATTC CTTAGCTCTG AATGTCCCTA TCAGTCTCTC CAGCATCATC 540
CTGCTCGGTC TGATCATCGT GTACACGCC AGGGAATAC AGTGTTCAT GGTGGCAAT 600
GGAGCAGATG ACTGGAGAAT AGCCATGACT TATGAGCGTA TTTCTTCAT CTGCTGGAA 660
ATACTGGTGT GTGCTATTCA TCCCATACCT GGAATATATA CATTCACATG GAGCGCGCGG 720
35  CTGCGCTCTT CCTATGCCCC ATCCACAACC ACCGCTGATG TGGATATTAT TTTATCTATA 780
CCAATGTCTT TAGACTCTA TCTGATTGCC AGAGTCATGC TTTTACATAG CAACCTTTTC 840
ACTGATGCTT CCTCTAGRAG CATTTGAGCA CTTAATAAGA TAAACTTCAA TACACGTTTT 900
GTTATGAAGA CTTTAATGAC TATATGCCCA GGAAGTGTAC TCTTGGTTTT TAGTATCTCA 960
TTATGGATAA TTGCCGATG GACTGTCCGA GCTTGTGAAA GGTACCATGA TCAACAGGAT 1020
40  GTTACTAGCA ATCTCTTGG AGCGATGTGG TTGATATCAA TAACTTTCT CTCCRTTGGT 1080
TATGTGACA TGGTACCTAA CACATACTGT GGAAGAGGAG TCGCTTACT TACTGGAAT 1140
ATGGGTGCTG GTTGCACAGC CTTGGTGGTA GCTGTAGTGG CAGGGAAGCT AGAAGCTACC 1200
AAAGCAGAAA AACCGTGA CAATTTATG ATGGATACTC AGCTGACTAA AAGAGTAAA 1260
AATGCAGCTG CCAATGTACT CAGGGAAACA TGGCTAATTT ACAGAAATAC AAGCTAGTG 1320
45  AAAAAAGATG ATCTATGAAA AGTAAGAAA CATCAACGAA AATTCTGCA AGCTATTGAT 1380
CAATTAAGAA GTGTAAATAT GGAGCAGAGG AACTGAATG ACCAAGCAA CACTTTGGTG 1440
GACTTGGCAA AGACCCAGAA CATCATGTAT GATATGATTT CTGACTTAAA CGAAGGAGT 1500
GAAGACTTCG AGAAGAGGAT TGTACCTCT GAAACAAAAC TAGAGACTTT GATTGGTAGT 1560
ATCCACGCCC TCCCTGGGCT CATAGGCCAG ACCATCAGGC AGCAGCAGAG AGATTTCATT 1620
50  GAGGCTCAGA TGGAGTACA CGACAGCAC GTCACTTACA ATGCTGAGCG GTCCGCGTCC 1680
TCGTCCAGAA GGCAGCGGTC CTCTCCACA GCACCAACAA CTTATCAGA GAGTAGCTAG

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Seq ID NO: 596 Protein sequence
Protein Accession #: NP_067627.1

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55  1      11      21      31      41      51
|      |      |      |      |      |
MSRCRYNGGV MRPLSNLSAS RRLHENDSE AQPLQPPASV GGGGGASSPS AAAAAAAVS 60
SSAPRIVVSK PEHNNSNMLA LYTGGGGSE GGGGGGGSGS HSSSSGTSKS KKNQNIQYK 120
60  LGRRALFEK RRLSLDYALI FGMFGIVVMV IETELSWGAY DKASLYSLAL KCLISLSTII 180
LLGLIIVYHA REIQLFMVDN GADDWRIAMT YERIFFICLE ILVCAIHPIP GNYTFWTAR 240
LAFSYAPSTT TADVDILLSI FMFLRLXLIA KVMLLHSLKF TDASSRSIGA LNKINFNTAF 300
VMKTLMTICP GTVLVLPFIS LWIIAAWTVR ACERYHDQD VTSNPLGAMW LISITPLSIG 360
YGDWVFNTYC GKGVCLLTGI MGAGCTALVV AVVARKLEIT KAEKHVNFM MDTQLTKRVK 420
NAAANVLRET WLIYKNTKLV KCIDHAKVRK HQRKPLQAIH QLRSVKMEOR KLNDQANTLV 480
65  DLAKTNIMY DMISDLNERS EDFEKRIYTL ETKLETLIGS IHALPGLISQ TIRQQQDFI 540
RAQMEYDKH VIYNAERSRS SSRRRSSST APPTSSESS

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Seq ID NO: 597 DNA sequence
Nucleic Acid Accession #: NM_015029.1
Coding sequence: 228..1097

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75  1      11      21      31      41      51
|      |      |      |      |      |
CTGCGATCCC GCAGGCGCAG GACGCGACTC TGGTGGGGGC CGTCTTCTTC CCCCAGAGCT 60
GGCGGTGGGC GCGCGCAATG AACTGGGAGC TGCTGCTGTG GCTGCTGGTG CTGTGCGCGC 120
TGCTCTGCTC CTGTGTGAG CTGCTGCGCT TCTTGAGGGC TGACGGGAGC CTGACGCTAC 180
TATGGGCCCA GTGGCAGGGA CGACGCCAGC AATGGGAGCT GACTGATATG GTGTGTGCGG 240
TGACTGGAGC CTGAGTGGGA ATTGGTGAGG AGCTGGCTTA CCAGTTGTCT AAAGTAGGAG 300
80  TTTCTCTTGT GCTGTGAGC AGAAGAGTGC ATGAGCTGGA AAGGTTGAAA AGAAGATGCC 360
TAGAGATATG CAATTAATAA GAAAAAGATA TACTTGTTTT GCCCTTGAC CTGACCGACA 420
CTGGTTCCCA TGAAGCGGCT ACCAAGCTG TTCTCCAGGA GTTGTGTAGA ATCGACATTC 480
TGGTCAACAA TGGTGAATG TCCAGCGGTT CTCTGTGCAT GGATACAGC TTGGATGTCT 540
ACAGAAAGCT AATAGAGCTT AACTACTTAG GAGCGGTGTC CTGACAAAA TTGTTCTGTC 600
CTCATGTAT CGAGAGGAAG CAAGGAAGA TTGTACTGT GAATAGCATC CTGGATATCA 660

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TATCTGTACC TCTTTCCATT GGATACTGTG CTAGCAAGCA TGCTCTCCGG GGTITTTTAA 720
 ATGGCCCTTG AACAGAACTT GCCACATACC CAGGTATAAT AGTTTCTAAC ATTGCCCCAG 780
 GAUCTGTGCA ATCAAAATAT GTGCGAATTT CCTAGCTGG AGAAGTCACA AAGACTATAG 840
 GCAATAATGG AGACCACTCC CACAAGATGA CAACCACTCG TTGTGTGCGG CTGATGTTAA 900
 TCAGCATGGC CAATGATTTG AAAGAAGTTT GATCTCAGA ACAACCTTTC TTGTFAGTAA 960
 CATATTTGTG GCAATACATG CCAACCTGGG CCTGGTGGAT AACCAACAAG ATGGGGAAGA 1020
 AAAGGATTGA GAACPTTAAG AGTCGTGTGG ATGCAGACTC TTCTTATTTT AAAATCTTTA 1080
 AGACAAACA TGACTGAAA GAGCACCTGT ACTTTTCAAG CCACTGGAGG GAGAAATGGA 1140
 AAACATGAAA ACAGCAATCT TCTTATGCTT CTGAATAATC AAAGACTAAT TTGTGATTTT 1200
 ACTTTTAAAT AGATATGACT TTGCTTCCAA CATGGAATGA AATAAAAAAT AAATAATAAA 1260
 AGATTGCCAT GAATCTGCA AA

Seq ID NO: 598 Protein sequence
 Protein Accession #: NP_057113.1

1 11 21 31 41 51
 MNWELLWLL VLCAALLLV QLLRFLRADG DLITLLWAEWQ GRRPENELTD MVVWVTGASS 60
 GIGESLAYQL SKLGVSLVLS ARRVHELERV KRRLENGNL KEKDILVLPL DLATDGSHEA 120
 ATKAVLQEPFG RIDILVNWNG MSQRSLCMT SLDVYRKLIE LNYLGTVSLT KCVLPHMIEA 180
 KQKCTVTVNS ILGILSVPLS IGYCASKHAL RGFNGLRTE LATYFGIIVS NICPGFVQSN 240
 IVENSAGREV TKTIGNNGDQ SHKMTTSRCV RLMLISMAND LKEVWISBP FLVTVYLNQY 300
 MPTWAWITN KMSKKRIENF KSGVDADSSY FKIFKTKHD

Seq ID NO: 599 DNA sequence
 Nucleic Acid Accession #: NM_000793.2
 Coding sequence: 401..1222

1 11 21 31 41 51
 GCCTGCAGAG AGAGGCACTT TGCAACCACAG ACAGATAGCA AGAAGGGAAA GACAGAGAGT 60
 GAGAAAAAAG AGGAGTCAGT CACTCCTGGG GAAGGGAGAG AGTGAGACTG GGAGAAAGAG 120
 AAGCACAGAA AGTGTGTGTA AAACGGAGTA AAGAAAGAAA AAAAATAAAC TACCTCTAAA 180
 GCACATTTAA AAAAAAAAAA CTCTGGCAAT TCAAGAAAGA AACAGGCTAC GTTTAAAGAG 240
 CATAGAGACA ATGAAGGGCT AAAGAAAAAT TTAATAATCT TCCACAGTC TCATAGGTGC 300
 TTGGAATTA AAGTAGAATC GCCTGTCTTT AACGGACTCT GACAGAGAGG GTGAAGGGGA 360
 ACCAGAGGCG ACAAGGGAAC TGACTCAGGA GGAGAGAAAG ATGGGCATCC TCAGCGTAGA 420
 CTGTCTGATC ACCTGCAAAA TTCTGCCAAT TTTTCTCC AACCTGCTCT TCCTGGCTCT 480
 CTATGACTGG GTCTTCTGTC TCAAGCACTG GGTGCTGCTG TTGAGCCGCT CCAAGTCCAC 540
 TCGCGAGAG TGCGCGGCGCA TGCTGACCTC AGAGGGACTG CGCTGCGTCT GGAAGAGCTT 600
 CCTCTCTGAT GCCTACAAAC AGGTGAAATT GGTGAGGAT GCCCCCAAT CCAGTGTGGT 660
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 TGAGGGAGCC ACATGCCACC TTCTTGACTT TGCCAGCCCT GAGCCGCCAC TAGTGGTCAA 780
 CTTTGGCTCA GCCACTTGAC CTCTTTTAC GAGCCAGCTG CCAGCCCTCC GCAAACTGGT 840
 GGAAGAGTTC TCCTCAGTGG CTGACTTCTT GCTGTCTTAC ATTGATGAGG CTCATCCACT 900
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 TGAACGTGTG TGCAATGTGC AGAGACAGAA AATTGCTTAT CTGGGAGGAA AGGGCCCTCT 1140
 CTCCTACAA CTTCAGAAAG TCCGCGCATG GCTGGAGAAG AATTTCAGCA AGAGATGAAA 1200
 GAAACTAGA TTAGCTGGTT AAAGGTATGA TTATAGAGA GCTTATTGTT TTAAGAGTT 1260
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 CACTACTCAA ATGGCAATGG GCTGAGTAAG TAACCATATC ACCCTCTCTC TTAGTAAAA 1440
 GCCCTATGTG AAAAGATCCC AAGATGGAGA GGAAGAAACG CTAATTCAGC ATGTGTTTAT 1500
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 TGGCTCTATT TGGCATGGAT GGAGCCAGT TGAAGAAATC CCAATATTA CACCAAGTCC 1680
 TGAACCCAG GCCATGGGT TAGACGTTG TGTAAAGTT AGACCTTATG TTAGATCAT 1740
 TTCTGATGTT CCACTTCTA GCCATGTAGT GCTCTCAGTC TTCATACCCC AGAATTTAT 1800
 GGTATATTG TAGATACCGA GAATGATCCC TCAGTCTGAG AGGTATAGAT GATCATCTGT 1860
 AATCTGAGGG TTAATTTCTA GGCAGGTGGA GAGAGTGGTA AAAAAGAAAT GAAATTGACA 1920
 AGCTAGGAAA GAGGAGGAG AAAGATTGG AAAATTACA GAGTTTCAAC CTTAAGCTGT 1980
 AGAGAGTGG TCACATTTGT TAGCCACGGA AACATAGAAA CATAACAAAG GCCAGAAAA 2040
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 CATATGCTCC TAGAGAGGAG AAAGGGGTGA TTGAAGAAA AAAAATACT TAAATATTG 2160
 TAAATGTGAG GGGTTTCTTT TGGAAATAAT TACTTTTGAA CCATGTATGT GGTATGTATA 2220
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 ATCTGATCA ATCATTTTGG AGGCTTTGTT ATAAGGCAAC CCCCCTATA TCATGGAAT 2640
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 CATTCATTA ATACTGAT AAAAATAAAA TAAATGGAT AGAAGAAAC TAAAGTTGAA 3000
 AATACATTCT TAACTAGTT GTCTGAAATG AGAAGAGAGT GAGAACTAGG TGTGCAAGAA 3060
 CCAACCTAT TTTTAAATG GAGCAACAT ATCAGTCTGT TCACCAAGCTG 3120
 GTATATTGTG TAAATATTA AGCTCCATTG GCACTGATTT TCATGGCAA CATCAGCTTT 3180
 CTATGTTCT AAATCTATA AAAACACCC ACAAGAAAC AAGCAAAAT TCATTATCTA 3240

| | | | | | | | |
|----|-------------|-------------|-------------|-------------|-------------|-------------|------|
| | ATGAGTTGCT | GGAAAAATCAT | ATTGAGAATA | ATTATTTTCAG | ATTCCCTCAGT | TGTTAACTTC | 3300 |
| | TACATTCAG | GGCTTATCTC | TGCCCCCATT | GATTTTAAAC | CTCAAAATGG | TGTGAGATT | 3360 |
| | ACTGTGGAAC | CCTAAAGCAG | TAAATAAATA | AACCTGGTTC | CAGCACATTC | ACACTGTTGT | 3420 |
| 5 | CCTTAAATTT | CCCCTTTTTC | CTCTATGTAC | GATAAAGTAA | CAGTATGTCA | GATAAGCCGG | 3480 |
| | TGGGGGGATG | AGATTAGGCT | GAGGCGATGC | TAGTCAACTG | GGGGAAAAGG | ATGATGGAAA | 3540 |
| | AATCACCACG | TTGTGCTATA | TTTTTAAAGA | AGGAGGTCGT | TTATGTGTGC | AGACAATTC | 3600 |
| | CCCTGAGGTT | AGCCCAATGG | AGAAATGAAG | CAGAGGAAGG | AAACATAGAA | AGACATGGGC | 3660 |
| | TATCAGGGAG | GAAGATGTTC | AATAGAACAT | GCAAGAAATT | CTGGAAGAAA | GGCTGTGGAA | 3720 |
| | GGGCCAATGG | AGAAAATGAA | TGGACAAAGC | TCAGGAATCC | CTACGCTATG | TAGAATGTTC | 3780 |
| 10 | TTGGTGTAT | CAGGGTTAAG | CCCTGTAAAT | ATGTAACTTA | TTTATCGCAA | CATGAATTTT | 3840 |
| | TATGATTTCT | TGTGATGTAT | TCITTTATGA | AATTAACRAG | AACCTCATAT | TTTGAGGTAG | 3900 |
| | AGGAAAATCA | ATGCTTTATC | TGATATGCTG | AGAAATTATT | AGATTGCCAA | TACTCATGTG | 3960 |
| | CGTTTCATGT | GTTTTATAAG | GTTCGTTTCT | TTGAAGAATT | GTAGTTCTTA | GTCCACACAG | 4020 |
| 15 | GAAATGTGTA | TCTATTATTA | TATCATAGTA | TAAATCTATG | ATATATTTAT | ATCATATATA | 4080 |
| | AAAGTCTGAG | TTCTCTTTCT | TAGTCCCTAA | TCATGTTTCT | CCCATAGGCT | GTGTTTACAT | 4140 |
| | GGAGCTATCG | GTTTAGCCCT | TTAAGCTTCA | TTAGCTTGTC | TATTATTGAA | ATAGTTTCCA | 4200 |
| | AGAAATTTTG | GATCATTTAC | TAACATCTGG | GTCTACTCAA | ACACTTATTG | TTTGAAGAC | 4260 |
| | TATGTCTGTG | GACCTATCAA | AAACTGACTT | TATTTATGTC | TTAGTGAATA | TACTAGTGGG | 4320 |
| 20 | ATCAACAATG | ATTTCTTTGA | ATGGGCATGA | ATGGAGATGC | CCGCACAGTA | ATGTAGAAAT | 4380 |
| | GTTTCATACA | GCTATTAAAA | TGTAACCTGAC | CTCCTTAGAG | GCAGATTAGT | AACTGTTCCT | 4440 |
| | ACTTTGTATA | GCTAAGTGAC | AGTCACTTAA | CTTACATGAC | TTTCTTTTTC | CACATTGGGT | 4500 |
| | CTCTGGTCTT | GTGCTTCTAC | CTCATTTATA | GCACGTCTCC | TGATTTTTTG | GTAGTATCAA | 4560 |
| | CTTCCGATGG | ATCTGTTTCA | TTAAGTTCTT | CTCCCGTTAA | CCAGGAAGTG | CTTATTCTCT | 4620 |
| | CATCAGATGG | GGAGAATGAG | CCATTTGTCT | TTCAATTTTG | CTGAGTGTAT | TTTACTATTT | 4680 |
| 25 | GGGCTCTGAA | ATAAAAATTA | TGAATATGAG | TCAGGTCACA | TGTTGGTGTCT | GCCTTGCTGC | 4740 |
| | ATAAATTTCT | AGGAGGGCAG | GTTAGGAGAC | AGTTATGTAT | GGGCTTTTCG | GAAAAATCAA | 4800 |
| | AGGGTGGGAT | TACAAAGGTG | TTCCCTCAGG | ATGCCCTAT | GGGCCCTATG | TGGGAAGCAG | 4860 |
| | AAAGATTTGAC | TGATTTACAG | GACTTCTCTT | TATGTCAATC | TTAAGAGGAT | GGATGAATCT | 4920 |
| 30 | GGACATTTGT | TCCACCCGAC | CTCTGACTGA | TGGTTTGGAA | AATAACTTTA | ATTAGGATCA | 4980 |
| | TATGACCAAT | GAAGAAAGAA | AAATGTAGAC | TCCTGACTTC | GTCCCACTGA | AGGATTAAAT | 5040 |
| | AAAACCTTTA | CTAGCATTTA | GAGCTTTTCA | GAACATCCCT | ACTGTCTAGT | GTCTCAGCAG | 5100 |
| | TGGAGACTGC | AAGTAAGGCT | TTTAATTTTA | GGAGGTTTTT | TTTTTTTTTT | TTTTTTCCCT | 5160 |
| | TAAATGGTAT | GGCCAAAGAT | CAGAGTTAAA | ATATATATAG | TTAGATTTCA | ACTTCCCTCT | 5220 |
| 35 | TCACTCTAAA | AATAGATCTC | AAACCCACTC | TTCATATATG | CTTCCAGAA | GGGGCTTAAG | 5280 |
| | TACCAATCTC | TGCTTTGCAA | TGGGCACAA | CTTGGTCTAG | TCCTGAGGCT | CTCTAAGAAA | 5340 |
| | AGAGAGGATC | TAGGATGGGA | GAGCTAGAAA | GTGTCTAACT | GGGAGAACA | AGGCCCTGAG | 5400 |
| | GGGTGGTCT | ACCAATCTGG | GAAGATTGGA | AAACAAACTT | CTCGCACTG | AAGGAAGGCT | 5460 |
| | GAAGGCTGCT | GCAAGTCATT | GAGTGACTTT | AGGATGAGCA | AAACATTGGG | CCACTTCTTA | 5520 |
| 40 | ATGCCCTATG | TGTATGTATC | CAGAAGCAAG | GTCTCAGACT | TAACAGACCC | AGCTCTGTTC | 5580 |
| | CAAGGTGAGT | CTGAACCAAT | AGAAAGCACA | CATGTGCAGA | TATCCAAACA | AGACTGTCTCA | 5640 |
| | TGCAAGTGGG | GGCTGGCTAC | CCGTCTTAGG | CAGCAACAGC | AGAGCTCCAG | GGAGCTTATT | 5700 |
| | CAATATTTAC | TGAGACTTCG | AAGACCCAGC | AGATGTTTAA | TGAAGTCACT | ATTTTGGCTC | 5760 |
| | AAACCCCTCA | CTTCTCCCCC | TCCCTCTCAA | AAGCCCAACG | GTAAACACAT | AAATGAAGA | 5820 |
| 45 | AAACCCACAG | AGGGGATGGG | AAATAAGAAA | AATTCTCTCA | AGACTTCTCT | AGGCCATGCT | 5880 |
| | CACCTGGTCAG | CGTGGTTTTT | ATGTGTATTA | GGATTGGGGG | ATGTGAAGAA | ATAAGTATCC | 5940 |
| | AGTACTTTAT | AACCAAGACA | ATTAAATGAT | ATTGGGGTAG | GGAAATGTTG | CCAGTTTTGT | 6000 |
| | TTAGTTTTCG | CTACACATTC | TCACCCAGAC | CTCACTTAGC | CCCAAGTAAT | CGGGCTGCC | 6060 |
| | GAAGAGGGAG | ACAGAGATGT | GCCAGAGTTG | ACCCAGTGTG | CGGATGATAA | CTACTGACGA | 6120 |
| 50 | AAGAGTCATG | TCAGCTCAGT | AGTGGTTGGA | TGTAGTCACA | TTAGTTTGCC | TCTCCCATC | 6180 |
| | TTTGTCTCCG | TGGCAGGAG | AATATGCGGG | ACATGATGCT | AAGAGCCCTG | GSTAAATGTG | 6240 |
| | GTGAGAAATG | AGCGGTGCAT | ATGCTACACA | TATGTGCTTC | TCAGTGTGAG | AAAATGAATC | 6300 |
| | GCITTTGGAG | ATTATCACTA | GAAGAGGTGT | TATCATATTG | GTGCTGAGTG | CTATGTGTGC | 6360 |
| | TTATACAATT | TGTTCTTGTA | TTTTAATAAA | CTTTGAATAA | AAGAATAAAA | AAAAAATAAA | 6420 |
| 55 | AAAAAATAA | | | | | | |

Seq ID NO: 600 Protein sequence
Protein Accession #: NP_000784.2

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|----|------------|------------|------------|------------|------------|------------|-----|
| 60 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | MGILSVLLLI | TLQILPVFFS | NCLFLALYDS | VILLKHVVLL | LSRSKSTRGE | WRRMLTSEGL | 60 |
| | RCVWKSFLID | AYKQVRLGED | APNSSVVHVS | STEGGDNSSG | GTQEKIAEGA | TCHLLDPASP | 120 |
| | ERPLVVNFES | ATUPPPTSQ | PAFRKLVEEF | SSVADFLVY | IDBAHESDGN | AIPGDSLSLF | 180 |
| 65 | EVKIHQDQED | RCAAAQQLLE | RFSLPFCREV | VADRMNNAN | IAYGVAFERV | CIVOROKIAY | 240 |
| | LGGKGPFSYN | LQEVRENLEK | NFSKRUKKTR | LAG | | | |

Seq ID NO: 601 DNA sequence
Nucleic Acid Accession #: NM_005233.1
Coding sequence: 101..3052

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|----|------------|------------|------------|------------|------------|------------|-----|
| 70 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | CCATGGATGG | TAACTTCTCC | AGCAATCAGA | GCGCTCCCC | TCACATCAGT | GGCATGCTTC | 60 |
| | ATGGAGATAT | GCTCCTCTCA | CTGCCCTCTG | CACCAGCAAC | ATGGATTGTC | AGCTCTOCAT | 120 |
| 75 | CCTCCTCTCT | CTCAGCTGCT | CTGTCTCTGA | CAGCTTCGGG | GAACTGATTC | CGCAGCTTTC | 180 |
| | CAATGAAGTC | AATCTACTGG | ATTCAAAAA | AATTCAGGGG | GAGCTGGGCT | GGATCTCTTA | 240 |
| | TCATACATAT | GGGTGGGAAG | AGATCAGTGG | TGTGGATGAA | CATTACACAC | CCATCAGGAC | 300 |
| | TTACCAAGTG | TGCAATGTCA | TGGACCAACG | TCAAAACAAT | TGGCTGAGAA | CAAACTGGGT | 360 |
| 80 | CCCCAGGAGC | TCAGCTCAGA | AGATTATATG | GGAGCTCAAG | TTCACTCTAC | GAGACTGCAA | 420 |
| | TAGCATTCCT | TTGGTTTATG | GAACTTGCAA | GGAGACATTC | AACCTGTACT | ACATGGAGTC | 480 |
| | TGATGATGAT | CATGGGCTGA | AATTTGAGCA | GCATCAGTTT | ACAAAGATTG | ACACCATTGC | 540 |
| | AGCTGATGAA | AGTTTCACTC | AAATGGATCT | TGGGACCGT | ATTCTGAAGC | TCAACACTGA | 600 |
| | GATTAGAGAA | GTAGGTCCTG | TCAACAAGAA | GGGATTTTAT | TTGGCATTTT | AAGATGTTGG | 660 |
| | TGCTGTGTGT | GCCTTGGTGT | CTGTGAGAGT | ATACTTCAAA | AAGTGCCCAT | TTACAGTGAA | 720 |

| | | | | | | | |
|----|-------------|-------------|------------|-------------|------------|------------|------|
| 5 | GAATCTGGCT | ATGTTTCCAG | ACACGGTACC | CATGGACTCC | CAGTCCCTGG | TGGAGGTTAG | 780 |
| | AGGGTCTTGT | GTCAACAATT | CTAAGGAGGA | AGATCCTCCA | AGGATGTACT | GCAGTACAGA | 840 |
| | AGGGCAATGG | CTTGATACCA | TTGGCAAGTG | TTCCCTGCAAT | GCTGGCTATG | AAGAAAGAGG | 900 |
| | TTTTATGTGC | CAAGCTTGTC | GACCAGGTTT | CTACAAGGCA | TTGGATGGTA | ATATGAAGTG | 960 |
| | TGCTAAGTGC | CGCCTCACA | GTCTACTCA | GGAGATGGT | TCAATGAACT | GCAGGTGTGA | 1020 |
| | GAATRAATTAC | TTCCGGGCAG | ACAAAGACCC | TCCATCCATG | GCTTGTATCC | GACCTCCATC | 1080 |
| | TTCAACAAGA | AATGTTATCT | CTAATATAAA | CBAGACCTCA | GTTATCCTGG | ACTGGAGTTG | 1140 |
| | GCCCTGTGAC | ACAGGAGGCC | GGAAAGATGT | TACCTTCAAC | ATCATATGTA | AAAAATGTGG | 1200 |
| 10 | GTGGAATATA | AAACAGTGTG | AGCCATGCG | CCCAATGTG | CGCTTCTTCC | CTCGACASTT | 1260 |
| | TGGACTCACC | AACACCACGG | TGACAGTGAC | AGACCTTCTG | GCACATACTA | ACTACACCTT | 1320 |
| | TGAGATTGAT | GCCGTTAATG | GGGTGTGAGA | GCTGAGCTCC | CCACCAAGAC | AGTTTGTCTG | 1380 |
| | GGTCAGCATC | ACAATTGAATC | AGGCTGCTCC | ATCACCTGTC | CTGACGATTA | AGAAAGATCG | 1440 |
| | GACCTCCAGA | AATAGCATCT | CTTTGTCTGT | GCAAGAACCT | GAACATCCTA | ATGGGATCAT | 1500 |
| 15 | ATTGGACTAC | GAGGTCAAAT | ACTATGAAAA | GCAGGACAAA | GAAACAAGTT | ATACCATCTT | 1560 |
| | GAGGGCAAGA | GGCACAATG | TTACCATCAG | TAGCCTCAAG | CCTGACACTA | TATACGTATT | 1620 |
| | CCAAATCCGA | GCCGAAACAG | CCGCTGGATA | TGGGACGAA | AGCCGCAAGT | TTGAGTTTGA | 1680 |
| | AACTAGTACA | GACTTTCTCT | CCATCTCTGG | TGAAAGTAGC | CAAGTGGTCA | TGATCGCCAT | 1740 |
| | TTCAAGCGCA | GATGACATTA | TTCTCTCTAC | TGTTGTCTAT | TATGTTTGA | TTGGGAGGTT | 1800 |
| 20 | CTGTGGGTAT | AAGTCAAAAC | ATGGGCGAGA | TGAAAAAGA | CTTCATTTTG | GCAATGGGCA | 1860 |
| | TTTAAACTTT | CCAGGTCTCA | GGACTTATGT | TGACCCACAT | ACATATGAAG | ACCCTACCCA | 1920 |
| | AGCTGTTTAT | GAGTTTGCCA | AGGAATTGGA | TGCCACCAAC | ATATCCATG | ATAAAGTTGT | 1980 |
| | TGGAGCAGT | GAATTGTGAG | AGGTGTGCG | TGTTCTCTTA | AAACTTCTCT | CAAAAAAGA | 2040 |
| | GATTTTCACT | GCCATTAAAA | CCCTGAAAGT | TGGCTACACA | GAAAGCAGA | GGAGAGACTT | 2100 |
| 25 | CCTGGGAGAA | CTGAGGATTA | TGGGACAGT | TGACCACTCC | ATATCATCTC | GACTGGAGG | 2160 |
| | AGTTGTTACC | AAAAGTAAGC | CAGTTATGAT | TGTCACAGAA | TACATGGAGA | ATGGTTCTCT | 2220 |
| | GGATAGTTTC | CTACGTAAAC | ACGATGCCCA | GTTTACTGTC | ATTGAGCTAG | TGGGGATGCT | 2280 |
| | TCGAGGGATA | GCATCTGGCA | TGAAGTACCT | GTGACACATG | GGCTATGTTT | ACCGAGACCT | 2340 |
| | CCCTGCTCGG | AACATCTTGA | TCAACAGTAA | CTTGGTGTGT | AAGGTTCTGT | ATTTCGAGAT | 2400 |
| 30 | TTGCGGTGTC | CTGAGGATTA | ATCCAGAAAG | TGCTTATACA | ACAGAGGAG | GGAGAGTCCC | 2460 |
| | AATCAGGTGG | ACATCACCAG | AAGCTATAGC | CTACCGCAAG | TTCACTGTAG | CCAGCGATGT | 2520 |
| | ATGAGATTAT | GGGATTGTCT | TCTGGGAGGT | GATGTCTTAT | GGAGAGAGAC | CATACTGGGA | 2580 |
| | GATGTCCAAT | CAGGATGTAA | TAAAGCTGT | AGATGAGGGC | TATCGACTGC | CACCCCCCAT | 2640 |
| | GGACTGCCCA | GCTGCTCTGT | ATCAGCTGAT | GCTGGACTGC | TGGCAGAAAG | ACAGGAACAA | 2700 |
| 35 | CAGACCCAA | TTTGAAGCAG | TTGTTAGTAT | TCTGGACAAG | CTTATCCGGA | ATCCCGCAG | 2760 |
| | CCTGAAGATC | ATCACCAAGT | CAGCCGCAAG | GCCATCAAC | CTTCTCTCTG | ACCAAAGCAA | 2820 |
| | TGTGGATATC | TCTACTCTCC | GCACAACAGG | TGACTGGCTT | AATGGTGTCC | GGACAGCACA | 2880 |
| | CTGCAAGGAA | ATCTTTCACG | GCCTGGAGTA | CAGTTCTTGT | GACACAATAG | CCAAGATTTC | 2940 |
| | CACAGATGAC | ATGAAAAAGG | TTGGTGTCTC | CGTGGTGGG | CCACAGAGA | AGATCATCAG | 3000 |
| 40 | TAGCATTAAG | GCTCTAGAAA | CGCAATCAAA | GAATGGCCCA | GTTCCGCTGT | AAAGCACGAC | 3060 |
| | GGAAGTGCTT | CTGAGCGGAA | GTGGTGGCTG | TGGAAGGCGT | CAAGTCATCC | TGCAGACAGA | 3120 |
| | CAATAATTCT | GGAGATACTG | GTGGAAGTT | | | | |

Seq ID NO: 602 Protein sequence
Protein Accession #: NP_005224.1

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|----|------------|-------------|-------------|-------------|-------------|-------------|-----|
| 45 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | | |
| | MDCQLSILL | LSCSVLDSFG | ELIPQPSNEV | NLLDSKTIQG | ELGWISYPSH | GWEEISGVDE | 60 |
| 50 | HYTPIRTYQV | CNVMDSQNN | WLRINWVFRN | SAQKIYVELK | FTLRDCNSIP | LVLGTCKETF | 120 |
| | NLYYMESDDD | HGVKPREHQF | TKIDTIAADE | SFTQMDLGDR | ILKJLNTZIRE | VGFVNKKGFY | 180 |
| | LAFQDVQACV | ALVSVRVYFK | KCFPTVKNLA | MFPDITVEMDS | QSLVEVRGSC | VNNSKEDPP | 240 |
| | RMYCTEGEAW | LVPICKKSCN | AGYERGFMC | QACRPGFYKA | LDGNMKCAKC | PPHSSTQEDG | 300 |
| | SMNCRCSNNY | FRADKPPPM | ACTRPPSPFR | NVISININETS | VILLWSEWPLD | TGGRKDVTFN | 360 |
| 55 | IICKKCGWNI | KQCEPCSPNV | RFLPRQFGLT | NTTIVTIDLL | ARNTNYTFEID | AVNGVSELSS | 420 |
| | EPFRQFAVSI | TTNQAAAPSPV | LTINKQETS | NSISLSWQBP | EHENGIILDY | BVKYERQEQ | 480 |
| | ETSYTILRAR | GTNVTISSLK | PDITIVVFQIR | ARTAAAGYGTN | SRKPEFETSP | DSFSPISGBSS | 540 |
| | QVVMIAISAA | VAILLLTVVI | YVLIGRFQGY | KSKHGADKRL | LHPGNCHLKL | PLRLTYVDPE | 600 |
| | TYEDPTQAVH | EFAKELDATN | ISIDKVVAG | EFGEVCSGRL | KLPSKKKISV | AKTKLVGYT | 660 |
| 60 | EKQRDFLQV | ASIMGQFDHP | NIIRLEGVVT | KSKPVMIVTE | YMGSLDSF | LKHDAQPTV | 720 |
| | IQVGMRLRGI | ASGMKYLSDM | GVVHRDLAAR | NILINSILVC | XVSDPGLSRV | LEDDPEAAAT | 780 |
| | TRGGKIPIRW | TSPEAIAYRK | FTSASDVNSY | GIVLNEVMSY | GERPYWMSN | QDVIRAVDEG | 840 |
| | YRLPEPMDCP | AALYQLMLDC | WQKDRNMRPK | FEQIVSILDK | LYRNPGLSKI | ITSAAARPSN | 900 |
| | LLLDQSNVDI | STFRITGDWL | NGVRTAHCKE | IFTGVEYSSC | DTIAKISTTD | MEKGVTVTVG | 960 |
| 65 | PQKILISSIK | ALSTQKNGP | VFV | | | | |

Seq ID NO: 603 DNA sequence
Nucleic Acid Accession #: NM_005727.1
Coding sequence: 122..847

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| 70 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | | |
| | GCCAGGCGTC | CCTCTGCCCTG | CCCACTCAGT | GGCAACACCC | GGGAGCTGTT | TTGTCCCTTG | 60 |
| | TGGAGCCTCA | GCGATTCCCT | CTTTCAGAAC | TCATGCGCAA | GAGCCCTGAA | CAGGAGCCAC | 120 |
| 75 | CATGCACTGC | TTGAGCTTCA | TTAAGACCAT | GATGATCCTC | TTCAATTGTC | TCACTTCTTC | 180 |
| | GTGTGGTGCA | GCCTCTGTGG | CAGTGGGCAT | CTGGGTGTCA | ATCGATGGGG | CATCCTTCTT | 240 |
| | GAAGATCTTC | GGGCCACTGT | CGTCCAGTGC | CATGCAGTTT | GTCAACGTGG | GCTACTTCTT | 300 |
| | CATGCGAGCC | GGGTTTGTGG | TCTTTGCTCT | TGGTTTCTGT | GGCTGCTATG | GTGCTAAGAC | 360 |
| | TGAGAGCAAG | TGCGCCCTCG | TGACGTTCTT | CTTCATCCTC | CTCCTCATCT | TCAATTGCTGA | 420 |
| 80 | GGTTGAGCT | GCTGTGGTGG | CCCTGGTGTA | CACCACAATG | GCTGAGCACT | TCCTGACGTT | 480 |
| | GCTGGTAGTG | CCTGCCATCA | AGAAAGATTA | TGGTTOCCAG | GAAGACTTCA | CTCAAGTGTG | 540 |
| | GAACACCCAC | ATGAAGAGGC | TCAAGTGTCT | TGGCTTCACC | AACTATACGG | ATTTTGAGGA | 600 |
| | CTCACCTCAT | TCAAAAGAGA | ACAGTGCCTT | TCCCTCATTC | TGTTGCAATG | ACAACGTCAC | 660 |
| | CAACACAGCC | AAATGAACCT | GCACCAAGCA | AAAGGCTCAC | GACCAAAAAG | TAGAGGTTTG | 720 |
| | CTTCAATCAG | CTTTTGTATG | ACATCGGAC | TAATGCAGTC | ACCGTGGGTG | GTGTGGCAGC | 780 |

TGGAAATTGGG GGCCTCGAGC TGGCTGCCAT GATTGTGTCC ATGTATCTGT ACTGCAATCT 840
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 AATGGACCTG CCTTTCTGCT TCCAGACTTG GGGCTAGATA GGGACCACTC CTTTATAGGG 1020
 ATGCTGACTT TTTCTTCCAT TGGTGGGTGG ATGGGTGGGG GGCATTCCAG AGCCTCTAAG 1080
 GTAGCCAGTT CTGTGGCCCA TTCCCCCACT CTATTAACCC CTGTATATGC CCCCCTAGGCC 1140
 TAGTGTGTAT CCCAGTGCTC TACTGGGGGA TGAGAGAAAG GCATTTTATA GCCTGGGCAT 1200
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 TGTTACAATG TTAATAAA

Seq ID NO: 604 Protein sequence
 Protein Accession #: NP_005718.1

1 11 21 31 41 51
 | | | | |
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 LAAGVVVPAL GFLGCVGAKT ESKCALVTFF FILLIFIAE VAAAVVALVY TMAEHFLTL 120
 LVVPAIKKDY GSQEDFTQVW NITMKGLKCC GFTNYTDFSD SPYFKENSAF PFPCNDNVNT 180
 NTANETCTBQ KARDQKVEGC FNQLLYDIRT NAVTVGGVAA GIGGLELAAM IVSMYLYCNL 240
 Q

Seq ID NO: 605 DNA sequence
 Nucleic Acid Accession #: NM_000729.2
 Coding sequence:

1 11 21 31 41 51
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 GCCCGGTAGG CAGCTGAGGG TATCCAGAG AACGGATGGC GAGTCCCGAG CGCACCCTGG 240
 CGCCCTGCTG GCAGATACAC TCCAGCAGGC CCGGAAAGCT CCTTCTGGAC GAATGTCCAT 300
 CGTTAAGAAC CTGCAAGACC TGGACCCGAC CCACAGGATA AGTGACCGGG ACTACATGGG 360
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 GCCGCCATCA GCCCAACGGA AGCAACCTCC CAACCCAGAG GAGGCAGAAAT AAGACAACAA 480
 TCACATCAT AACTCATTTG CTGTGGAGTT TGACATTGAA TGTATCTATT TATTAAGTTC 540
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 TGTGCAAACT GAAGACAAA CTGTTTCTT CATCTGTGAC TCCTGTCTCT AAAATGTTGT 660
 TATGCTATTA AAGTATTTC ATTCTGCC

Seq ID NO: 606 Protein sequence
 Protein Accession #: NP_000720.1

1 11 21 31 41 51
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Seq ID NO: 607 DNA sequence
 Nucleic Acid Accession #: NM_001423.1
 Coding sequence: 219..692

1 11 21 31 41 51
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 CAGGGCTGCT GCAGACACCT GCCACTCAGA GCGCCTCTGT OGCCTGGACC CTTCAAGACT 180
 CTCTTTGCTC ACAGTTTACC AAAAAAATA GAGCCACAT GTTGGTATTG CTGGCTGGTA 240
 TCTTTGGGCT CCACATCCCT ACTGTTATTA TGCTATTGTT TAGCAACATT GCCAATGTCT 300
 GGTGGGTTTC CAATACGATA GATGATCAG TAGGTCTTTG GAAAACTGT ACCAACATTA 360
 GCTGCAGTGA CAGCCTGTCA TATGCCAGTG AAGATGCCCT CAAGACAGTG CAGGCTTCA 420
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 GCATTCTGAT GGGGTGTGTC ATCTACACTA GTCATTAAGC GAATGTGTAT GGAACGCAAT 600
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 CCGAGATAGG GGAAGGGGGA GGGGGAAGCA AAGGGGGGAG GTCAATTCCT AAACCATTAC 840
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 GAGTATACAC CTCCTGGGGA CCTTGCTAT OCCACTTAC AGGTGAGGCA TGGCAATTCT 1800

5 GGAAGCTGAT TAAACACAC ATAAACCAAA ACCAAACAAC AGGCCCTTGG GTGAAAGGTG 1860
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 GCATTCCGAG GAAATAACGA AAATCCCAIG AGATAAATAA AAATATAGGT GATGGGCAGA 1980
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 15 ACCATGTATT CCCTATCTT TACTTTTTT TCTGTGACAT TTATGTCTCA TGTAAATTCG 2640
 ATTACTCTGG TGGATTGTTC TAGTACTGTA TTGGGCTTCT TCGTTAATAG ATTATTTCAT 2700
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Seq ID NO: 608 Protein sequence
 Protein Accession #: NP_001414.1

20 1 11 21 31 41 51
 25 MLVLLAGIEFV VHIATVIMLF VSTIANVVLV SNTVDASVGL WKNCTNISC SLSYASSDA 60
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 Coding sequence: 55..1575

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 CCTCAGACTG AATCAAGAA TGAAGCCTCT TCCCTGTATG TTGCTATGG CCCCCAGCCC 180
 CAGCCCTCTG AATATCAGT CCTCTCTGAG GAAACAAAGT CACTGAGAC TGAGACTGGG 240
 AGCAGAGTTG GCAAACTGCC AGAAGCCTCT CGCATCCTGA ACATATCCT GAGTATTTAT 300
 40 GACCAACAAAC TGCGCCCTGG CATGGAGAG AGCCCCACTG TGCTCCTGT TGAGATCGCC 360
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 65 ACTTAGTAT CAGCTCCCTA AAACCATGCC TAGTACAGG CGGATTAGCT ATCTTCCAAC 1920
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 70 TCAGATTATT ATGTTCTCAG TTCTCTCTCC CTGCTACCCC TTTCTCTGCA GATAGATAGA 2160
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 75 GCGAGAAAC TAGAGAAACT CGGCTTTGCA ACAGGCATTA CTCGCAATG ATTGTGCCCC 2520
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 80 GATAGCCTTG TGACATCTTT AGGGCAGGAT TCTTATCCCC ATTTTGAGA TGAACACCT 2760
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 GGCCTGAGGT GCTCAGACTG CCCCCAAGAT CAAATCTCTC CTGCTGTAG TAAACCAATG 3000
 GAATGAATTT GACATGCCCC CAATGCTTCT ATATGCTAAG TGAATCTGT GTCTGTAAAT 3060

TGTTGGGGGG TGGATAGGGT GGGGTCTCCA TCTACTTTTT GTCAACATCA TCTGAAATGG 3120
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5 Seq ID NO: 610 Protein sequence
Protein Accession #: NP_004952.1

| | | | | | | |
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| 1 | 11 | 21 | 31 | 41 | 51 | |
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| TGSRVKGKPE | ASRILNTILS | NYDHKLRLPGI | GEKPTVVTVS | LAVNLSGLPLS | ILDMEYTIID | 120 |
| IFSQIHWYDER | LCYNDTFESL | VINGNVVSQL | WIPDTFFRNS | KRTHEHEITM | FNQMVRIYKD | 180 |
| GKVLVYTRMT | IDAGCSLHML | RFFMDSHSCP | LSFSSFSYPE | NEMIYKWNEN | KLEINBKNSW | 240 |
| KLFQDFDTGV | SNKTELIITP | VGDFVMVTIF | FNVSRRFGYV | AFQNVYPSVS | TMLSNVSEFW | 300 |
| IKTESAPART | SLGITSVLTM | TLIGTFSRKN | FPRVSYITAL | DFYIAICFVF | CFCALLEFAV | 360 |
| LNFLIYNQTK | AHASPRLRHP | RINSRAHART | RARSRACARQ | HQZAFVCOIV | TTEGSDGEER | 420 |
| PSCSAQQPPS | PGSPGPRSL | CSKLACCENW | KRFKKYFCMV | PDCEGSTWQQ | GRLCIHVYRL | 480 |
| DNYSRVVFPV | TPFFFNVLVW | LVCLNL | | | | |

20 Seq ID NO: 611 DNA sequence
Nucleic Acid Accession #: NM_021984.1
Coding sequence: 572..1753

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| TCCAAAGTTC | TCCAGTCTCT | CCTAGGCATC | TTATTGATCC | TCCAGTCGAG | AACATGTATA | 120 |
| CAGAGAAGTG | CTCAATATCAT | AAGTGTACAG | CTGATGAGTT | GTCAAAAAGT | GACCACAGCG | 180 |
| GTGTAAAGAA | AGCCAAATCA | AGGACCGGAA | TGTGAGCAGG | ACCTCAGAAG | CCCCCTTTGT | 240 |
| CACTGCCCTCC | CAGCAAGGCG | AGCACTATCC | GGACTTCTAA | CACCATCGGG | TCGAGGGACC | 300 |
| TCAGACTGAA | TCAAGAAGAT | AAGCCTCTTC | CGGTGATGTT | GTCTATGGCC | CCCAGCCCCA | 360 |
| GOCTCTGGAA | AATCAGCTCC | TCTCTGAGGA | AACAAAGTCA | ACTGAGACTG | AGACTGGGAG | 420 |
| CAGAGTTGSC | AAACTGCCAG | AAGCCTCTCG | CATCCTGAAC | ACTATCCTGA | GTAATTATGA | 480 |
| CCACAAACTP | CGCCCTGGCA | TTGGAGAGAA | GCCCACTGTG | GTCACTGTGT | AGATCTCCGT | 540 |
| CAACAGCCTT | GGTCTCTCT | CTATCCTAGA | CATGGAATAC | ACCATTGACA | TCATCTCTTC | 600 |
| CCAGACCTGG | TACGACGAAC | GCCCTCTGTA | CAACGACACC | TTTGAGTCTC | TTGTTCTGAA | 660 |
| TGGCAATGTG | GTGAGCCAGC | TATGGATCCC | GGACACCTTT | TTTAGGAATT | CTAAGAGGAC | 720 |
| CCACGAGCAT | GAGATCACA | TGCCCAACCA | GATGGTCCGC | ATCTACAGG | ATGGCAAGGT | 780 |
| GTGTACACA | ATTAGGATGA | CCATTGATGC | CGGATGCTCA | CTCCACATGC | TCAGATTTC | 840 |
| AATGGATTCT | CATCTTGOC | CTCTATCTTT | CTCTAGCTTT | TCCTATCCIG | AGATGAGAT | 900 |
| GATCTACAAG | TGGAAAATTT | TCAAGCTTGA | AATCAATGAG | AAGAACTCCT | GGAGCTCTT | 960 |
| CCAGTTGGAT | TTTACAGGAG | TGAGCAACAA | AACGAAATTA | ATCACAAACC | CAGTGGTGA | 1020 |
| CTTCATGCTC | ATGACGATTT | TCTTCAATGT | GAGCAGGCGG | TTTGGCTATG | TTGCCCTTCA | 1080 |
| AAACTAAGTC | CCTTCTCCG | TGACCAAGAT | GCTCTCTG | GTTCCTCTTT | GGATCAAGAC | 1140 |
| AGAGTCTGCT | CCAGCCCGGA | CCTCTCTAGG | GATCACCCTC | GTCTGACCA | TGACCAGGTT | 1200 |
| GGGCACCTTT | TCTCGTAAGA | ATTTCCCGCG | TGTCCTCTAT | ATCACAGCCT | TGGATTCTTA | 1260 |
| TATGCCATCT | TGCTTGTCT | TCTGCTTCTG | CGCTCTGTTG | GAGTTTGCTG | TGCTCAACTT | 1320 |
| CCTGATCTAC | AACCAAGACAA | AAGCCCATGC | TTCTCCTAAA | CTCCGCCATC | CTCGTATCAA | 1380 |
| TAGCCGTGCC | CATGCCCGTA | CCCGTGACAG | TTCCCGAGCC | TGTGCCCGCC | AACATCAGGA | 1440 |
| AGCTTTTGTG | TGCCAGATTG | TCACCACTGA | GGGAAGTGAT | GGAGAGGAGC | GCCCTCTCTG | 1500 |
| CTCAGCCCGC | CAGCCCCCTA | GCCCAAGTAG | CCCTGAGGGT | CCCGCCAGCC | TCTGCTCCAA | 1560 |
| GCCTGGCTGC | TGTGGCTGCT | GCAAGCGTTT | TAAGAAATAC | TTCTGCAATG | TCCCGGATTT | 1620 |
| TGAGGGCAGT | ACCTGGCAGC | AGGCCCGGCT | CTGCATCCAT | GTCTACCGCC | TGGATACTA | 1680 |
| CTCGAGAGTT | GTTTCTCCAG | TGACTTTCTT | CTTCTTCAAT | GTCTCTCACT | GGCTTGTGTT | 1740 |
| CCTTAACCTG | TAGGTACCA | CTGGTACCCT | GTGGGCAAC | CTCTCCAGTT | CCCCAGGAGG | 1800 |
| TCCAAAGCCC | TTGCCAAGGG | AGTTGGGGGA | AAGCAGCAGC | AGCAGCAGGA | GCGACTAGAG | 1860 |
| TTTTTCTGCG | CCCATCTCCC | AAACAGAGGC | TTTCAGAGGG | TTTGTCTTTG | CTGCCCTCTC | 1920 |
| CCCTACTGCT | GCCATTCTAC | TGAGTTTCTT | CAGCAGACCA | TTTCAAAATTA | TTAATAAATG | 1980 |
| GGCCACCTCC | CTCTCTTCTA | AGGAGCATCC | GTGATGCTCA | GTGTTCAAAA | CCACAGCCAC | 2040 |
| TTAGTGATCA | GCTCCCTAAA | ACCATGGCTA | AGTACAGGCG | GATTAGCTAT | CTTCCACAA | 2100 |
| TGCTGACCAC | CAGACAATTA | CTGCATTTT | CCAGAGGCC | ACTATTGCC | TTGCAGTGCT | 2160 |
| TTGGGCCAG | TTCTGGCCTC | AGCCTCAAAG | TGCACCGACT | AGTTGCTTGC | CTATACCTGG | 2220 |
| CACCTCATTA | AGATGCTGGG | CAGCAGTATA | ACAGGAGGAA | GAGATCCCTC | TCTTTGGTTC | 2280 |
| AGATTATPAT | GTCTCAGAT | CTCTCTCCCT | GCTACCCCTT | TCTCTGCAGA | TAGATAGACA | 2340 |
| CTGSCATPAT | CCCTTTAGGA | AGAGGGGGGG | CGACCAAGAG | AGCCTATTGG | GGACAGCAIT | 2400 |
| CCCTCTCTCT | TGCTGCTGTG | ACATCTCCCT | CTCCTTGCTG | GCTCCATCTT | TGCTGTCAC | 2460 |
| TACCAATTCA | ATGCCCTTCA | TCCATGGGT | ATCTATTTT | GTGTGTGATT | ATAGTAACTA | 2520 |
| CTCCCTGCTT | TATATGCCAC | CCCTCTCCCT | CTCTTTGACC | CTGTGACATC | TTTCTGTAA | 2580 |
| TTTCCCAAGT | ACTTCCCTTA | GCCCTBACCC | AGGCACTAGG | CCTTGGTGAC | TTCTGGGGC | 2640 |
| CAAGAACTA | AGGAAACTCG | GCTTTGCAAC | AGGCATTACT | CGCCATTGAT | TGGTGCCAC | 2700 |
| CCAGGSCACA | CTGTCCGAGT | TCTATCACTT | GCTTGACCCC | TGGACCCATA | AACAGTCCA | 2760 |
| CTGTTATACC | CGGGGCACTC | TAACCATCAC | AATCAATCAA | TCAAAATTC | TTAAATTTGT | 2820 |
| ATGGCAGTGG | AACCTTGGCA | AAGCACTTTT | GACAAGTTGT | GTCTGATTTG | AGCTTCATGA | 2880 |
| TAGCCTTGTG | ACATCTTTAG | GGCAGGATTC | TTATCCCAT | TTTGACAGATG | AAAACCTGGA | 2940 |
| GTACAGATT | TCTGTGGGAC | TGTGATCTC | ACTGGAGCT | ATCCAAGAGC | CCACTGTCTC | 3000 |
| CTTCTAGACC | ACATGATAGG | GCTAGACAGC | TCAATTCTAC | ATGATTCTCT | TCTGTACCT | 3060 |
| CTGCTGGCAC | ACCAAGTGCA | AGGCCAGAA | TGGGACCTC | TCTTTAGCTC | AATTTCTGGG | 3120 |
| CCTGAGGTGC | TCAGACTGCC | CCCAAGATCA | AATCTCTCCT | GGCTGTAGTA | ACCCAGTGGG | 3180 |
| ATGAATTTGG | ACATGCCCCA | ATGCTTCTAT | ATGCTAAGTG | AAATCTGTGT | CTGTAAITTG | 3240 |
| TTGGGGGGTG | GATAGGGTGG | GGTCTCCATC | TACTTTTTGT | CACCATCATC | TGAAATGGGG | 3300 |
| AAATATGTAA | ATAATATAT | CAGCAAGC | | | | |

Seq ID NO: 612 Protein sequence
Protein Accession #: NP_068819.1

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5 MVRYYKDGKV LYTIRMTIDA GCSLHMLRFP MDSHSCPLSF SSFSPYENEM LYKWNFKLE 60
INENKSNKLF QLOFTGVSNK TELIITPVGD FMVMTIFPNV SRRFGYVAFQ NYVPSSVTIM 120
LSWVSFWIKT ESAPARTSLG ITSVLMTML GTFSRKNEFR VSYITALDFY IALCFVFCFC 180
ALLEFAVLNF LIYNQTKAHA SPKLRRPRIN SRAHARTRAR SRACARQHOE APVCQIVTTE 240
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Seq ID NO: 613 DNA sequence
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Coding sequence: 572..1657

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CACTGCCCTC CAGCAAAAGC AGCACTATCC GGACTTCTAA CACCATCGGG TCGAGGGACC 300
TCAGACTGAA TCAAGAAGATG AAGCCCTCTC CCGTGTATGT GTCTATGGCC CCCAGCCCCA 360
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CCGCATCTAC AAGGATGGCA AGGTGTGTGA CACAATTAGG ATGACCATTG ATGCCGAGTG 720
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CTCTGTTCTG ACCATGACCA CGTTGGGCAC CTTTCTCTGT AAGAATTTCC CGCGTGTCTC 1140
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GTGAAATCTG TGTCTGTAAT TTGTTGGGGG GTGGATAGGG TGGGGTCTCC ATCTACTTTT 3180
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Seq ID NO: 614 Protein sequence
Protein Accession #: NP_068822.1

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VMTIFPNVSR RFGYVAFQNY VPSSVTMLSL WVSFWIKTES APARTSLGIT SVLMTMLGT 180
FSKNEFPKVS YITALDFYLA ICFVFCFCAL LKFAVLNPLI YNQTKAHASP KLRRPRINSR 240
AHARTRARSR ACARQHQBAP VCQIVITEGS DGEERPSCSA QPPSPGSPS GPRSLCSKLA 300
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Seq ID NO: 615 DNA sequence
Nucleic Acid Accession #: NM_021990.1
Coding sequence: 1309..2490

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GATTGGAGCT TCATGATAGC CTTGTGACAT CTTTAGGGCA GGATTCTTAT CCGCATTTT 3660
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Seq ID NO: 616 Protein sequence
Protein Accession #: NP_068830.1

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INENKSKLF QDFNFGVSNK TEIITFVGD FMVMTIFENV SRREGYVAFQ NYVPSSVTM 180
LSWVSFNLKT ESAPARTSLG ITSVLTMITL GTFERKNFPR VSYITALDFY IAIQVPCFC 240

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5

Seq ID NO: 617 DNA sequence
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 Coding sequence: 26..952

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 15 CTGGGAAGAT TCGAACACCG ACCTGCTGCC GGGCCCTGCA GTCCGGATAC TCACGCCAGA 300
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 Protein Accession #: NP_004855.1

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Seq ID NO: 619 DNA sequence
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 55 CTGCGCTGCT GCCCTCTGCG GCGCGGGAAG CAGCACCAAG TTCCACGGCA ACCCCTTGGC 240
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Seq ID NO: 620 Protein sequence
Protein Accession #: NP_003970.1

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KLVRGRKPLS LLVILGLAVG FSLVQDVIAI EYIVLTMNRT NVWVFSLSA PRNEDFVLL 180
LTYVLFMAL TFLMSSFTFC GSFTGWRHG AHYILMLLS LAIWVANITL LMLPDFDRRW 240
BDTILSSALA ANGVVFLLAY VSPFLLLK QRNPMQYPVE DAFCKPQLVK KSYGVENRAY 300
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Coding sequence: 48..851

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Seq ID NO: 622 Protein sequence
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55 PHITVDRLVS KALNMWKEI PLHFRKVVWG TADIMIGFAR GAHGOSYFDP GPENTLAHAF 180
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AATCAAGCAA TGTGAGTGT ATCTATCCAA ACATCTATGC AGCAAAACCA GTGATCACCC 900
80 CAGAACCGGT GACCTCACC CCAAGTTATT CCAAGTATG CCAAGCAAT AAGTAAGGCT 960
ACAGATTCTG GAAGCATCTT TCACTGGGAC CAAAGAAAGT CCTCTCCCT TCTGGGCTT 1020
CCATAACCCA GGTCTGTCTT GTTCTGACAG CTGAGGAAAC GTCTCTCCCA CTGTTTGTAC 1080
TCTCACTTTC ATTCTTCAAT TCACTCTAGG AAACCATGCT GTTCTCTTAT CAAGAAGAAG 1140
ACAGAGATT TAAACAGATG TTAACCAAGA GGGACTCCCT AGGGCAGATG CATCAGCACA 1200
TATGTGGGCA TCCAGCTCTT GGGGCTTGG CACACACACA TTGTTGTCT CTGCTGCATG 1260

TGAGCTTGTG GGTTAGAGGA ACAAATATCT AGACATTCAA TCTTCACTCT TTCAATTGTG 1320
CATTCAITTA ATAAATAGAT ACTGAGCATT CAAAAA AAAA

Seq ID NO: 624 Protein sequence
Protein Accession #: NP_113645.1

1 11 21 31 41 51
MNSMTSAVPV ANSVLVVAPH NGYPVTPGIM SEVPLYPNQ PQVHLVPGNP PSLVSNVNGQ 60
PVQKALKEGK TLGAIQIIIG LAHIGLGSIM ATVLVGEYLS ISFYGGPEFN GGLWFIISGS 120
LSVAAENQPY SYCLSSSLG LNIWSAICSA VGVILFIDL SIPHYAYPD YYPYANGVNP 180
GMAISGVLLV FCLLEPGIAC ASSHFGQLV CQSSNVSVI YPNIYAANPV ITPEPVTSP 240
SYSSSIQANK

Seq ID NO: 625 DNA sequence
Nucleic Acid Accession #: NM_085221.3
Coding sequence: 1..870

1 11 21 31 41 51
ATGACAGGAG TGTTTGACAG AAGGGTCCCC AGCATCCGAT CCGGCGACTT CCAAGCTCCG 60
TTCCAGACGT CCGCAGCTAT GCACCATCCG TCTCAGGAAT CGCCACTTT GCCCGAGTCT 120
TCAGCTACCG ATTCTGACTA CTACAGCCCT ACGGGGGGAG CCCGCGACG CTACTGCTCT 180
CTTACTCCG CTCTCTATGG CAAAGCTCTC AACCCCTACC AGTATCAGTA TCACGGCGTG 240
AAGCGCTCCG CCGCGAGCTA CCCAGCCAAA GCTTATGCG ACTATAGCTA CGCTAGCTCC 300
TACCACTAGT ACGGGGGGCG CTACAACCGC GTCCCAAGCG CCACCAACCA GCCAGAGAAA 360
GAAGTGACCG AGCCCGAGGT GAGAATGGTG AATGGCAAAC CAAAGAAAGT TCGTAAACCC 420
AGGACTATT ATTCCAGCTT TCAGCTGGCC GCATTACAGA GAAGGTTTCA GAAGACTCAG 480
TACCTGCGCT TCGCGGAGCG CGCCGAGCTG GCGCCCTCGC TGGGATTGAC ACNAACTACG 540
GTGAAATCT GGTTCAGAAA CAAAGATCC AAGATCAAGA AGATCATGAA AAACGGGGAG 600
ATGCCCGCG AGCAGCTCC CAGCTCCAGC GACCCAATGG CGTGTAACCT CCGCAGTCT 660
CCAGCTGTGT GGGACCCCCA GGGCTCGTCC CGCTCGCTCA GCCACCACCC TCATGCCAC 720
CCTCGACCT CCAACCTAGT CCCAGCGTCC AGCTACCTGG AGAAGCTGCT ATCTGGTAC 780
ACAAGTGCAG CCAGCTCAAT CAATTCCAC CTGCCGCCCG CCGGCTCCTT ACAGCACCCG 840
CTGGCGCTGG CCTCGGGAC ACTCTATTAG

Seq ID NO: 626 Protein sequence
Protein Accession #: NP_055212.1

1 11 21 31 41 51
MTGVFDRRVF SIRSGDFQAP FQTSAAHHP SQBSPTLPES SAIDSQYVSP TGGAPRGYCS 60
PTSASYGKAL NPYQYQYHGV NGSAGSYPAK AYADYSYASS YHQYGGAYNR VPSATNPPEK 120
EVTPEVRMV NGKPKKVRKP RTIYSSFLA ALQRRFQRTQ YLALPERAEL AASLGLTQTQ 180
VKIWFQNKRS KKKLKMKGGE MPPEHSPSSS DPMACNSPQS PAVWERQSSS RSLSHHTFAH 240
PFTSNQSPAS SYLENSASWY TSAASSINSH LPPPGSLQHP LALASGTLT

Seq ID NO: 627 DNA sequence
Nucleic Acid Accession #: NM_014420
Coding sequence: 118..792

1 11 21 31 41 51
GCAAGAGAGA CACGTGCTG AGCTGCCAGC TTAGTGAAG CTCGCTCTG GGTGGAGAGC 60
AGCCTCGCTT TGGTGAACCA CAGTGCCTGG ACCCTCCAGG AGCCCGGGGA TTGAAGGATG 120
GTGGCGGCGG TCGTCTGGG GCTGAGCTGG CTCTGCTCTC CCGTGGGAGC TCTGGTCTG 180
GACTTCAACA ACATCAGGAG CTCGCTGAC CTGCATGGG CCGGAAGGG CTCACAGTGC 240
CTGTCTGACA CGGACTGCAA TACCAGAAAG TTCTGCTCC AGCCCGGGA TGAGAGGCG 300
TTCTGTGCTA CATGTGCTGG GTTGCAGAG AGGTGCCAGC GAGATGCCAT GTGCTGCCCT 360
GGGACACTCT GTGTGAACGA TTTTGTACT ACGATGGAAG ATGCAACCCC AATATTAGAA 420
AGGACACTTG ATGAGCAAGA TGGCACACAT GCAGAAGGAA CAACTGGGCA CCGACTCCAG 480
GAAACCAAC CCAAAAGGAA GCCAAGTATT AAGAAATCAC AAGGCAGGAA GGGACAGAG 540
GGAGAAAGT GTCTGAGAAC TTTTGAAGT GGCCTGGAC TTGCTGTGC TCGTCATTT 600
TGGACGAAA TTTGTAAGCC AGTCTTTG GAGGACAGG TCTGCTCCAG AAGAGGGCAT 660
AAGACACTG CTCAGCTCC AGAATCTTC CAGCGTGGG ACTGTGGGCC TGGAAGTACT 720
TGTGGAAGCC AATTGACAG CAATCGGCAG CATGCTCGAT TAAGAGTATG CCAAAAAATA 780
GAAAGCTAT AATATTTC AATAAAGAA GAATCCACAT TGCAAAAAA AAAAAAATA 840
A

Seq ID NO: 628 Protein sequence
Protein Accession #: NP_055235

1 11 21 31 41 51
MVAAILGLS WLCSPILGALV LDFMIRBSA DLHGARKGSQ CLSDTDNTR KFCLQPRDEK 60
PFCAICRGLR RRCQRDAMCC PGTLGVNDVC TTMDATPIL ERQLDRDGT HAEGTTHGPV 120
QENQPKRPS IKKSQGRKQ EGSCSLRTFD CGPGLCCARH FWTIKCKPVL LEGQVCSRRG 180
HKDTAQAPBI PORCOCGPGL LCRSGLTSNR QHARLRVCQK IERL

Seq ID NO: 629 DNA sequence
Nucleic Acid Accession #: NM_002448.1
Coding sequence: 241..1134

1 11 21 31 41 51

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|----|------------|-------------|------------|------------|------------|-------------|------|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| | GCGCGAGTGC | TCCCGGGAAC | TCTGCTTGC | CGCGGCGAGC | GACCGGAGGC | CAGGCCGAGC | 60 |
| | ACGCGGAGGC | TGCGCTGCTG | GGGAGGGGCG | GGAGGGGCGC | GCGGGGAGGT | CCGCCCGGCC | 120 |
| 5 | AGGCCCGCGG | CCCTGCGCAG | GGCGGGCGCG | GCTCCGAGCC | CGCCCGGAGC | CCATGCCCGG | 180 |
| | CGGCTGGCCA | GTGCTGGCGG | AGAAGGGGGG | GCCCGGCTCT | GCAATGGCCC | GGCTGCTGAC | 240 |
| | ATGACTTCTT | TGCCACTCGG | TGTCAAAGTG | GAGGACTCGG | OCTTCGGCAA | GCGGGCGGGG | 300 |
| | GGAGGCGCGG | GCCAGGCCCC | CAGCGCGCGC | GCGGCCACCG | CAGCCGCCAT | GGGCGCGGAC | 360 |
| | GAGGAGGGGG | CCAAGGCCAA | AGTGTCCCTT | TGCTCTCTGC | OCTTCAGCGT | GGAGGCGCTC | 420 |
| 10 | ATGGCCGACC | ACAGGAAGCC | GGGGGCCAAG | GAGAGCGGCC | TGGCGCCCTC | CGAGGGCGTG | 480 |
| | CAGGCGGGCG | GTGGCTCGGC | GCAGCCACTG | GGCGTCCCGC | CGGGGTGCGT | GGGAGGCCCG | 540 |
| | GACGCGCCCT | CTTCGCCCGG | GCCGCTCGGC | CATTCTCGGG | TGGGGGGACT | CCTCAAGCTG | 600 |
| | CCAGAGATG | CGCTCGTCAA | AGCCGAGAGC | CCGAGAGAAG | CCGAGAGGAC | CCCGTGGATG | 660 |
| | CAGAGCCCCC | GCCTCTCCCC | GCCGCGCGCC | AGGCGGCTGA | GCCCCCGAGC | CTGCACCTTC | 720 |
| 15 | CGCAACACAA | AGAGCAACCG | TAAAGCCGCG | ACGCCCTTCA | CCACCGCGCA | GCTGCTGGCG | 780 |
| | CTGGAGCCCA | AGTTCGCCCA | GAAGCAGTAC | CTGTCCATCG | CCGAGCGCGC | GGAGTCTCTC | 840 |
| | AGCTGCTCA | GCCTCACTGA | GACBCAGGTG | AAGATATGGT | TCCAGAACCG | CGCGCGCAAG | 900 |
| | GCAAGAGAC | TACAAGAGGC | AGAGCTGGAG | AAGCTGAAGA | TGGCTGCCAA | GCCCCATGCT | 960 |
| | CCACCGGCTG | CTTCGCGCCT | CTCCTTCCCT | CTCGGCGGCC | CCGCACTGTT | AGCGCGCGCG | 1020 |
| 20 | CGGGGTGGCT | CGCTCTACGG | TGCCCTCTGC | CCCTTCGAGC | GCGCGCGCTC | GCTGTGGCGG | 1080 |
| | CCCGTGGGAC | TCTACACGGC | CCATGTGGGC | TACAGCATGT | ACCACCTGAC | ATAGAGGGTC | 1140 |
| | CCAGTCCCCC | ACCTGTGGGC | CAGCGGATTC | CTCCAGCCCT | GGTGTGTATC | CCCCGACGTG | 1200 |
| | CTCCCCCTGT | CGGCACGGCC | AGCCGCGCTC | CTTTTAAACC | TCACACTGCT | CCAGTTTCAC | 1260 |
| | CTCTTTGCTC | CCCTGAGTCA | CTCTCGGAAG | TCTGATCCCT | GCCAAAGAGT | GGCTGGGAGA | 1320 |
| 25 | GTCCCTTAGT | CGCTCTTAGG | CATTAGATC | TACACTCTCG | AGTTAAAGAT | GGGGAAGCTG | 1380 |
| | AGGGCAGAGA | GGTTAAACAGA | TTTATCTAGG | GTCCCGACGA | GAATTGACAG | TTGAAACAGAG | 1440 |
| | CTAGAGGCCA | TGCTCTCTGC | ATAGCTTTTC | CCTGTCTCTG | CACCAAGCAA | GAAAGCGCGA | 1500 |
| | GAGAAATCGG | TGCTCTGCGA | TTTTGGAAT | GAGAACATTC | TCAAAAAAAA | AAAAAAGAAA | 1560 |
| | AAAAAAGAAA | GAAAGAGGAA | AAAAAGAGCT | AGCCAGCCAG | GAAGATGAAT | CCTAGCTTCT | 1620 |
| 30 | TCCATTGGAA | AAITTAAGAC | AAGTTCAACA | ACAAAACATT | TGCTCTGGGG | GGCAGCGAAA | 1680 |
| | ACACAGATGT | GTTCGCAAGG | TAGGTTGAAG | GGA | | | |

Seq ID NO: 630 Protein sequence
Protein Accession #: NP_002439.1

| | | | | | | | |
|----|------------|------------|------------|------------|------------|------------|-----|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| | MTSLPLGVKV | EDSAFGKPRG | GGAGQAPSAA | AATAAAMGAD | ESGAKPKVSP | SLLPFSVEAL | 60 |
| | MADHRKPKAK | ESALAPSGV | QAAGSQAQPL | GVPPGSLGAP | DAPSPSPRLG | HFSVGGLLKL | 120 |
| 40 | PEDALVKAES | PEKPERTFWM | QSPRFSTFPA | RRLSPACTL | RKHKINRKPR | TPFTTAQLLA | 180 |
| | LERKPRQKQY | LSIAERAEFS | SLSLLETQV | KIWFQNRRAK | AKRIQBAELE | KLGMMAKPM | 240 |
| | PFAAFGLSFP | LGGPAVAVAA | AGASLYGASG | PFQRAALFVA | PVGLYTAHV | YSMYHLT | |

Seq ID NO: 631 DNA sequence
Nucleic Acid Accession #: NM_002557.1
Coding sequence: 13..2049

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|----|-------------|------------|-------------|------------|-------------|-------------|------|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| | CAGACCATTC | AGATGTGGAA | GCTGTTGCTG | TGGGTGGGCG | TGGTCTGTGT | GCTGAAACAC | 60 |
| 50 | CAGATGGGCG | CTGCCCCATA | ACTGCTGTGT | TATTTTACCA | ACTGGGCACA | CAGTCGGCCA | 120 |
| | GGCCCTGGCT | CGATCTTGCC | CCATGACCTG | GACCCCTTTC | TCTGCAACCA | CCTGATATTT | 180 |
| | GCCTTTGGCT | CAATGAACAA | CAATCAGATT | GTGCTAAGG | ATCTCCAGGA | TGAGAAAAAT | 240 |
| | CTCTACCCAG | AGTTCAACAA | ACTAAAGGAG | AGGAACAGAG | AGCTGAAAGC | ACTACTGTCC | 300 |
| 55 | ATCGGCGGGT | GCACTTTTGG | CACCTCAAGA | TTCAACACTA | TGTTGTCCAC | ATTGTCCAAC | 360 |
| | CGTGAAAGAT | TTATTGCTTC | AGTTATATCC | CTTCGAGGA | CACATGACTT | TGATGCTCTT | 420 |
| | GACCTTTTCT | CTTATATCTC | TGGACTAAGA | GGCAGCCCCA | TGCTGACCCG | GTGGACTTTT | 480 |
| | CTCTTCTTAA | TTGAAAGAGC | CCTGTTTGCC | TTCCGGAAAG | AGGCACTGCT | CACCATGCGC | 540 |
| | CCGAGGCTGC | TGCTGTCTGC | TGCTGTTTCT | GGGGTCCAC | ACATGCTCTA | AACATCTTAT | 600 |
| 60 | GATGTGCGCT | TTCTAGGAAG | ACTCTGGAT | TTTATCAATG | TCTTGTCTTA | TGACTTACAT | 660 |
| | GGAAGTTGGG | AAAGGTTTAC | AGGACATAAT | AGCCOCTCT | TCTCTGCGCC | TGAGAGCCCC | 720 |
| | AAATCTTCGG | CATATGCTAT | GAATTATTGG | AGAAAGCTTG | GGGCACCTTC | AGAGAGCTTC | 780 |
| | ATCATGGGGA | TCCCAACCTA | TGGACGTACC | TTTCGCTCTC | TCAAAGCCTC | TAAGAAATGG | 840 |
| | TTGCAGGCCA | GAGCGATCGG | ACCAGCATCT | CCAGGGAAGT | ACACCAAGCA | AGAAAGCTTC | 900 |
| 65 | TTGGCTTATT | TTGAGATTTG | TTCTTTTGTG | TGGGGAGCGA | AGAAGCACTG | GATTTGATTAC | 960 |
| | CAGTATGTCC | CGTATGCCAA | CAAGGGGAAA | GAGTGGGTTG | GCTATGACAA | TGCCATCAGC | 1020 |
| | TTCAATTACA | AGGCATGGTT | TATAAGGCGA | GAGCATTTTG | GGGGGGCCAT | GGTGTGGACA | 1080 |
| | TTGGACATGG | ATGACGTCA | GGGCACG/TC | TGTGGCACTG | GCCCTTTTCC | CCTTGTCTAC | 1140 |
| | GTATTGAATG | ATATCTGGT | GCGGGCTGAG | TTCAAGTCAA | CTTCTTTTACC | ACAATTTTGG | 1200 |
| 70 | CTGTCACTCG | CTGTGAATTC | TTCAAGCACT | GACCCTGAAA | GGCTGGCTGT | GACCAAGGCA | 1260 |
| | TGGAACCACTG | ATAGTAAGAT | TTTCCCCCCA | GGAGGAGAGG | CTGGGGTCA | TGAGATCCAC | 1320 |
| | GGAAGGTGTG | AAAATATGAC | TATAACCCCT | AGAGGTACAA | CTGTGACCCC | TACAAAGGAA | 1380 |
| | ACTGTATCCC | TGGAAGGCA | CACCTGTAGCT | CTAGGAGAGA | AGACTGAGAT | CACCTGGGCA | 1440 |
| | ATGACCATGA | CTTCTGTGGG | TCATCAGTCC | ATGACCCCTG | GAGAGAAGGC | CCTGACCCCT | 1500 |
| 75 | GTGGGTCACT | AGGTGGGCGC | CACCTGTGAC | CACCTGTGAC | AGAGCCCTGA | CCTCTGTGGG | 1560 |
| | GTGACCCCTG | GGGAAAGAGC | CCTGACCCCT | GTGGGTCTAT | AGTCTGTGAC | CCCTGTGAGT | 1620 |
| | CATCAGTCTG | TGAGCCCTGG | AGGAACGACT | ATGACCCCTG | TCCATTTTCA | GACTGAGACC | 1680 |
| | CCTAGACAGA | ATACAGTGGC | CCCTAGAAGG | AAGGCTGTGG | CCCTGAAAAA | GCTGACTGTC | 1740 |
| | CCCTCCAGAA | ACATATCAGT | CACCCCTGAA | GCGCAGACTA | TGCCTTTAAG | AGGGGAGAAAT | 1800 |
| 80 | TTGACTTCTG | AGGTGGGCGC | TCACCCGAGG | ATGGGTAACT | TGGGTCTTCA | GATGGAAGCT | 1860 |
| | GAAACAGAGA | TGATGCTGTC | CTCCAGCCCT | GTCTCCAGC | TCCCGGAAAC | AACCTCTTCA | 1920 |
| | GCTTTTGAAC | ACCGCTTTGT | TCCCATCTAT | GGAAACCAAT | CCTCTGTCAA | CTCAGTAACC | 1980 |
| | CCTCAACCAA | GTCTCTTTTC | TCTAAAAAAA | GAAATCCAG | AAAACCTGCG | TGTGGATGAA | 2040 |
| | GAAGCCTAAG | CCCTCTGGT | GTCAAGAAAC | AGGGAAGAAC | CTTGTCTTTT | CTTCTAAGTG | 2100 |
| | ACATGTTGGA | AGCCTTCTCA | TCCCGGGGCA | AAGCAGGCAT | CAAAACCGAA | ATAGGCCAAT | 2160 |

CTCTTTTCCA TTAATAAAC TGTAACACA AGAACCCA

Seq ID NO: 632 Protein sequence

Protein Accession #: NP_002548.1

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|------------|-------------|------------|------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | |
| MKKLLLMVGL | VLVLKHHGGA | AHKLVCYFTN | WAHSRPGPAS | ILPHDLDPFL | CTHLIFAFAS | 60 |
| MNNNQIVAKD | LQDEKILYPE | FNKLKERNRE | LKTLISIGGW | NFGTSRFTIM | LSTFANREKP | 120 |
| IASVISLLRT | HDFDGLDLFP | LYPGLRGSPM | HDRTFLFLI | EELLFAPRKE | ALLTMRPRLL | 180 |
| LSAAVSGVPH | IVQTSYDVRE | LGRLLDFINV | LSYDLHGSE | RFTGHNSPLF | SLFEDPKSSA | 240 |
| YAMMYWRKLG | AFSEKLIMGI | PTYGRIFRLL | KASKNGLQAR | AIGPASPGKY | TKQSGFLAYF | 300 |
| EICSFVWGA | KHWIDYQYVF | YANKGKEWVG | YDNAISPSYK | AWFIRREHFG | GAMVNTLDM | 360 |
| DVRGTFQGTG | PFPLVYVLND | ILVRAEFSST | SLPQFWLSSA | VNSSSTDFER | LAVITAWTTD | 420 |
| SKLLPFGGEA | GVTEIHGKCE | NMTITPRGTT | VTPKSTVSL | GKSTVALGEK | TEITGAMTMT | 480 |
| SVGHQSMTPG | EKALTVPVGHQ | SVTTGQKTLT | SVGYQSVTPG | EKTLTPVGEQ | SVTPVSEQSV | 540 |
| SPGGTTMTFV | HPQTETLRQN | TVAPRRKAVA | REKVTVPSPN | ISVTPEGQTM | PLRGENTLSE | 600 |
| VGTHPRMGNL | GLQMEARENRM | MLSSSPVIQL | PEQTPLAFDN | RFVPIYGNES | SVNSVTPQTS | 660 |
| FLSLKKEIFE | NSAVDEEA | | | | | |

Seq ID NO: 633 DNA sequence

Nucleic Acid Accession #: NM_003885.1

Coding sequence: 98..1021

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|------------|------------|-------------|-------------|------------|-------------|------|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | |
| AAACTCAGAA | TTTTGCGGG | CTCGGTGAGC | GGTTTTATCC | CTCCGCCCGG | CAGGCTGGGC | 60 |
| GCAGGGGGCG | AGCCCCCGCC | CGGCGCGCAG | CAGCACCATG | GGCACGGTGC | TGTCCCTGTC | 120 |
| TCCAGCTTAC | CGGAAGGCCA | CGCTGTTTGA | GGATGGCGCB | GCCACGGTGG | GCCACTATAC | 180 |
| GGCCGTACAC | AACAGCAGAA | ACGCCAAGGA | CAAGAACCTG | AAGCGCCACT | CCATCATCTC | 240 |
| CGTGTGCCT | TGGAAGAGAA | TGCTGGCCGT | GTCCGCCAAG | AAGAAGAACT | CCAAGAAGGT | 300 |
| GCAGCCTAAC | AGCAGCTACC | AGAACCAACAT | CACGCACCTC | AACAAAGAGA | ACCTGAAGAA | 360 |
| GTCTGTGTCG | TGCGCCAACC | TGTCCACATT | CGCCAGCCCC | CCACCGGCC | AGCCGCCCTGC | 420 |
| ACCCCCCGCC | AGCCAGCTCT | CGGGTTCCCA | GAACGGGGGC | TCCTCCTCAG | TCAAGAAAGC | 480 |
| CCCTCACCTT | GCCGTCACTT | CCGCAGGGAC | GCCCAACCGG | GTCTCGTCC | AGCGCTCCAC | 540 |
| CAGTGAGCTG | CTTCGTGCTC | TGGGTGAGTT | TCTCTGCCCG | CGGTGCTACT | GCCTGAAGCA | 600 |
| CCTGTCCCCC | ACGAGCCCCG | TGCTCTGGCT | GCGCAGCGTG | GACCGCTCGC | TGCTTCTGCA | 660 |
| GGGCTGGCAG | GACCAGGGCT | TGCTCACGCC | GGCCACAGTG | GTCTTCTCTT | ACATGCTCTG | 720 |
| CAGGATGTT | ATCTCTCTCG | AGGTGGGCTC | GGATCACGAG | CTCCAGGGCG | TCCGCTGAC | 780 |
| ATGCTGTAC | CTCTCTTACT | CCTACATGGG | CAACAGAGATC | TCTACCCCG | TCAAGCCCTT | 840 |
| CCTGGTGGAG | AGCTGCAAGG | AGGCTTTTGG | GGACCGTTGC | CTCTCTGTCA | TCAACCTCAT | 900 |
| GAGCTCAAAG | ATGCTGCAGA | TAAATGCCGA | CCACACTAC | TTTACACAGG | TCTTCTCGGA | 960 |
| CCTGAAGAAC | CAGAGCGGCC | AGGAGGACAA | GAGCGGCTC | CTCCTAGGCC | TGGATCGGTG | 1020 |
| AGCACTGTAG | CTTGGCTCAT | GGCTCAAGGA | TTCAATGCAT | TTTTAAGAAT | TTATTATTAA | 1080 |
| ATCAGTTTGG | TGACAG | | | | | |

Seq ID NO: 634 Protein sequence

Protein Accession #: NP_003876.1

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|------------|------------|------------|------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | |
| MGTVLSLSFS | YRKATLFEDG | AATVGHYTAV | QNSKNANDKN | LKRESIISVL | PWKRIVAVSA | 60 |
| KXKNSKRVQP | NSSYQNNITE | LNNENLKKSL | SCANLSTFAQ | PPPAQPPAPP | ASQLGGSQTG | 120 |
| GSSSVKKAPH | PAVTSAGTPK | RVIVQASTSE | LRLCLGEFLC | RRCYRLKHLS | PTDFVLWLR | 180 |
| VDRSLLLQGN | QDQGFITPAN | VVFLYMLCRD | VISSEVSGDH | ELQAVLLTCL | YLSYSYMGNE | 240 |
| ISYPLKPELV | ESCKEAFNDR | CLSVINLMSS | KMLQINADPH | YPTQVPSDLK | NESGQEDKQR | 300 |
| LLGLDR | | | | | | |

TABLE 79A:

| | | | | | |
|----|----------------|--|-----------|--|-----------------------|
| 5 | Pkey: | Unique Eos probeset identifier number | | | |
| | ExAccn: | Exemplar Accession number, Genbank accession number | | | |
| | UnigeneID: | Unigene number | | | |
| | Unigene Title: | Unigene gene title | | | |
| | Seq ID No.: | Sequence identification number linking information in Table 79A to sequences in Table 80 | | | |
| 10 | Pkey | ExAccn | UnigeneID | Unigene Title | Seq ID No. |
| 15 | 424212 | NM_005814 | Hs.143131 | glycoprotein A33 (transmembrane) | Seq ID No. C1 & C217 |
| | 424503 | NM_002205 | Hs.149509 | Integrin, alpha 5 (fibronectin receptor, | Seq ID No. C2 & C218 |
| | 418007 | M13509 | Hs.83169 | matrix metalloproteinase 1 (interstitial | Seq ID No. C3 & C219 |
| | 418007 | M13509 | Hs.83169 | matrix metalloproteinase 1 (interstitial | Seq ID No. C4 & C220 |
| | 418738 | AW338633 | Hs.6682 | solute carrier family 7, (cationic amino | Seq ID No. C5 & C221 |
| 20 | 443548 | AJ085198 | Hs.164226 | Thrombospondin 1 | Seq ID No. C6 & C222 |
| | 409956 | AW103364 | Hs.727 | inhibin, beta A (activin A, activin AB a | Seq ID No. C7 & C223 |
| | 422867 | L32137 | Hs.1584 | cartilage oligomeric matrix protein (psa | Seq ID No. C8 & C224 |
| | 444381 | BE387335 | Hs.283713 | hypothetical protein BC014245 | Seq ID No. C9 & C225 |
| | 421582 | AJ910275 | Hs.350470 | trifol factor 1 (breast cancer, estroge | Seq ID No. C10 & C226 |
| 25 | 411789 | AF245505 | Hs.72157 | Adfican | Seq ID No. C11 & C227 |
| | 452281 | T93500 | Hs.28792 | Homo sapiens cDNA FLJ11041 fis, clone PL | Seq ID No. C12 |
| | 428698 | AA852773 | Hs.334838 | KIAA1866 protein | Seq ID No. C13 & C228 |
| | 421552 | AF026692 | Hs.105700 | secreted frizzled-related protein 4 | Seq ID No. C14 & C229 |
| | 425247 | NM_005940 | Hs.155324 | matrix metalloproteinase 11 (stromelysin | Seq ID No. C15 & C230 |
| 30 | 432201 | AJ538513 | Hs.298241 | Transmembrane protease, serine 3 | Seq ID No. C16 & C231 |
| | 447377 | X77343 | Hs.334334 | transcription factor AP-2 alpha | Seq ID No. C17 & C232 |
| | 446921 | AB012113 | Hs.16530 | small inducible cytokine subfamily A (Cy | Seq ID No. C18 & C233 |
| | 416898 | AJ078801 | Hs.89436 | cadherin 17, U cadherin (liver-intestin | Seq ID No. C19 & C234 |
| | 432179 | X75208 | Hs.2913 | EphB3 | Seq ID No. C20 & C235 |
| 35 | 422578 | AF239556 | Hs.1545 | caudal type homeo box transcription fact | Seq ID No. C21 & C236 |
| | 409889 | AW830041 | Hs.56337 | suppression of tumorigenicity 14 (colon | Seq ID No. C22 & C237 |
| | 447033 | AJ357412 | Hs.157601 | Predicted gene: Eos cloned; secreted w/v | Seq ID No. C23 & C238 |
| | 447033 | AJ357412 | Hs.157601 | Predicted gene: Eos cloned; secreted w/v | Seq ID No. C24 & C239 |
| | 411975 | AJ916058 | Hs.144583 | 3'UTR of: dead ringer (Drosophila)-like | Seq ID No. C25 & C240 |
| 40 | 434206 | AW138973 | Hs.362915 | ESTs, Weakly similar to S68890 mitogen l | Seq ID No. C26 & C241 |
| | 423936 | U77629 | Hs.135639 | achaete-scute complex (Drosophila) homol | Seq ID No. C27 & C242 |
| | 447400 | AK000322 | Hs.18457 | hypothetical protein FLJ20315 | Seq ID No. C28 & C243 |
| | 449032 | AA045573 | Hs.22500 | nuclear factor (erythroid-derived 2)-lik | Seq ID No. C29 & C244 |
| | 415214 | AJ445236 | Hs.125124 | EphB2 | Seq ID No. C30 & C245 |
| 45 | 443247 | BE614387 | Hs.333893 | c-Myc target JPO1 | Seq ID No. C31 & C246 |
| | 422048 | NM_012445 | Hs.288126 | spondin 2, extracellular matrix protein | Seq ID No. C32 & C247 |
| | 410418 | D31382 | Hs.63325 | transmembrane protease, serine 4 | Seq ID No. C33 & C248 |
| | 446342 | BE298665 | Hs.14846 | solute carrier family 7 (cationic amino | Seq ID No. C34 & C249 |
| | 411274 | NM_002776 | Hs.69423 | kallikrein 10 | Seq ID No. C35 & C250 |
| 50 | 104978 | AJ99268 | Hs.19322 | Homo sapiens, Similar to RIKEN cDNA 2010 | Seq ID No. C36 & C251 |
| | 422260 | AA315993 | Hs.105484 | regenerating gene type IV | Seq ID No. C37 & C252 |
| | 409041 | AB033025 | Hs.50081 | Hypothetical protein, XP_051860 (KIAA118 | Seq ID No. C38 & C253 |
| | 420344 | BE463721 | Hs.97101 | putative G protein-coupled receptor | Seq ID No. C39 & C254 |
| | 422163 | AF027208 | Hs.112360 | prominin (mouse)-like 1 | Seq ID No. C40 & C255 |
| 55 | 437935 | AW939591 | Hs.5940 | mucin 13, epithelial transmembrane | Seq ID No. C41 & C256 |
| | 422330 | D30783 | Hs.115263 | epiregulin | Seq ID No. C42 & C257 |
| | 408908 | BE296227 | Hs.250822 | serine/threonine kinase 15 | Seq ID No. C43 & C258 |
| | 407811 | AW190902 | Hs.40098 | cysteine knot superfamily 1, BMP antagon | Seq ID No. C44 & C259 |
| | 437852 | BE001836 | Hs.256897 | putative GPCR | Seq ID No. C45 & C260 |
| 60 | 408243 | Y00787 | Hs.624 | interleukin 8 | Seq ID No. C46 & C261 |
| | 426088 | AF038007 | Hs.166196 | ATPase, Class I, type 8B, member 1 | Seq ID No. C47 & C262 |
| | 439738 | BE246502 | Hs.9558 | soma domain, immunoglobulin domain (Ig), | Seq ID No. C48 & C263 |
| | 419741 | NM_007019 | Hs.93002 | ubiquitin carrier protein E2-C | Seq ID No. C49 & C264 |
| | 450983 | AA305384 | Hs.25740 | ERO1 (S. cerevisiae)-like | Seq ID No. C50 & C265 |
| 65 | 417771 | AA804698 | Hs.82547 | retinoic acid receptor responder (tazaro | Seq ID No. C51 & C266 |
| | 421379 | Y15221 | Hs.103982 | small inducible cytokine subfamily B (Cy | Seq ID No. C52 & C267 |
| | 442006 | AW975183 | Hs.372210 | ESTs, Weakly similar to S72482 hypotheti | Seq ID No. C53 & C268 |
| | 413048 | M93221 | Hs.75182 | mannose receptor, C type 1 | Seq ID No. C54 & C269 |
| | 443324 | R44013 | Hs.164225 | ESTs | Seq ID No. C55 & C270 |
| 70 | 424917 | AJ636208 | Hs.96901 | hypothetical protein FLJ23049 | Seq ID No. C56 & C271 |
| | 424917 | AJ636208 | Hs.96901 | hypothetical protein FLJ23049 | Seq ID No. C57 & C272 |
| | 444527 | NM_005408 | Hs.11383 | small inducible cytokine subfamily A (Cy | Seq ID No. C58 & C273 |
| | 422652 | AJ005163 | Hs.201378 | Homo sapiens cDNA FLJ40427 fis | Seq ID No. C59 & C274 |
| | 450726 | AW204800 | Hs.355452 | HUMPSPBA Human pulmonary surfactant-asso | Seq ID No. C60 & C275 |
| 75 | 416965 | N26223 | Hs.160436 | MDAC1 | Seq ID No. C61 & C276 |
| | 442275 | AW449467 | Hs.54795 | Homo sapiens secretoglobulin, family 3A, m | Seq ID No. C62 & C277 |
| | 431745 | AW972448 | Hs.163425 | Novel FGENESH predicted cadherin repeat | Seq ID No. C63 & C278 |
| | 431745 | AW972448 | Hs.163425 | Novel FGENESH predicted cadherin repeat | Seq ID No. C64 & C279 |
| | 453142 | AA033648 | Hs.7473 | Homo sapiens gap junction protein, alpha | Seq ID No. C65 & C280 |
| 80 | 421659 | NM_014459 | Hs.100511 | protocadherin 17 | Seq ID No. C66 & C281 |
| | 444090 | S69115 | Hs.10305 | natural killer cell group 7 sequence | Seq ID No. C67 & C282 |
| | 421563 | NM_006433 | Hs.105806 | granulysin | Seq ID No. C68 & C283 |
| | 430413 | AW842182 | Hs.241392 | small inducible cytokine A5 (RANTES) | Seq ID No. C69 & C284 |
| | 414891 | C17898 | | Homo sapiens up-regulated by BCG-CWS (LO | Seq ID No. C70 & C285 |
| | 419833 | AA251131 | Hs.220697 | Homo sapiens tryptophanyl-IRNA synthetas | Seq ID No. C71 & C286 |
| | 424943 | AJ077260 | Hs.153924 | death-associated protein kinase 1 | Seq ID No. C72 & C287 |

| | | | | | |
|----|--------|-----------|-----------|---|------------------------|
| 5 | 430890 | X54232 | Hs.2699 | glypican 1 | Seq ID No. C73 & C288 |
| | 452401 | NM_007115 | Hs.29352 | tumor necrosis factor, alpha-induced pro | Seq ID No. C74 & C289 |
| | 439180 | AI393742 | Hs.199067 | v-erb-b2 avian erythroblastic leukemia v | Seq ID No. C75 & C290 |
| | 410407 | X66839 | Hs.63287 | carbonic anhydrase IX | Seq ID No. C76 & C291 |
| | 418526 | BE019020 | Hs.85838 | solute carrier family 18 (monocarboxylic | Seq ID No. C77 & C292 |
| | 422627 | BE336857 | Hs.118787 | transforming growth factor, beta-induced | Seq ID No. C78 & C293 |
| | 430486 | BE062109 | Hs.241551 | chloride channel, calcium activated, fam | Seq ID No. C79 & C294 |
| | 423673 | BE003054 | Hs.1695 | matrix metalloproteinase 12 (macrophage | Seq ID No. C80 & C295 |
| 10 | 423673 | BE003054 | Hs.1896 | matrix metalloproteinase 12 (macrophage | Seq ID No. C81 & C296 |
| | 431846 | BE019924 | Hs.271580 | uroplakin 1B | Seq ID No. C82 & C297 |
| | 431958 | X63629 | Hs.2877 | cadherin 3, type 1, P-cadherin (placenta | Seq ID No. C83 & C298 |
| | 448733 | NM_005829 | Hs.187958 | solute carrier family 6 (neurotransmitter | Seq ID No. C84 & C299 |
| | 426440 | BE382756 | Hs.169902 | solute carrier family 2 (facilitated glu | Seq ID No. C85 & C300 |
| 15 | 426484 | AF104032 | Hs.184601 | solute carrier family 7 (cationic amino | Seq ID No. C86 & C301 |
| | 429211 | AF052693 | Hs.198249 | gap junction protein, beta 5 (connexin 3 | Seq ID No. C87 & C302 |
| | 423634 | AW959903 | Hs.1690 | heparin-binding growth factor binding pr | Seq ID No. C88 & C303 |
| | 457819 | AA057484 | Hs.35406 | FLJ20522 Hypothetical protein FLJ20522 | Seq ID No. C89 & C304 |
| | 424687 | J05070 | Hs.151738 | matrix metalloproteinase 9 (gelatinase B | Seq ID No. C90 & C305 |
| 20 | 418462 | BE001595 | Hs.85266 | integrin, beta 4 | Seq ID No. C91 & C306 |
| | 439606 | W79123 | Hs.58561 | G protein-coupled receptor 87 | Seq ID No. C92 & C307 |
| | 407720 | AB037776 | Hs.39002 | immunoglobulin superfamily, member 9 | Seq ID No. C93 & C308 |
| | 418543 | NM_005329 | Hs.85962 | hyaluronan synthase 3 | Seq ID No. C94 & C309 |
| | 417512 | X76634 | Hs.82226 | glycoprotein (transmembrane) nmb | Seq ID No. C95 & C310 |
| 25 | 415817 | U88967 | Hs.78867 | protein tyrosine phosphatase, receptor-t | Seq ID No. C96 & C311 |
| | 415817 | U88967 | Hs.78867 | protein tyrosine phosphatase, receptor-t | Seq ID No. C97 & C312 |
| | 415817 | U88967 | Hs.78867 | protein tyrosine phosphatase, receptor-t | Seq ID No. C98 & C313 |
| | 415817 | U88967 | Hs.78867 | protein tyrosine phosphatase, receptor-t | Seq ID No. C99 & C314 |
| | 415817 | U88967 | Hs.78867 | protein tyrosine phosphatase, receptor-t | Seq ID No. C100 & C315 |
| 30 | 415817 | U88967 | Hs.78867 | protein tyrosine phosphatase, receptor-t | Seq ID No. C101 & C316 |
| | 415817 | U88967 | Hs.78867 | protein tyrosine phosphatase, receptor-t | Seq ID No. C102 & C317 |
| | 415817 | U88967 | Hs.78867 | protein tyrosine phosphatase, receptor-t | Seq ID No. C103 & C318 |
| | 421817 | AF148074 | Hs.108660 | ATP-binding cassette, sub-family C (CFTR | Seq ID No. C104 & C319 |
| | 421817 | AF148074 | Hs.108660 | ATP-binding cassette, sub-family C (CFTR | Seq ID No. C105 & C320 |
| 35 | 409420 | Z15008 | Hs.64451 | laminin, gamma 2 (nicotin (100kD), kalini | Seq ID No. C106 & C321 |
| | 440659 | AF134160 | Hs.7327 | claudin 1 | Seq ID No. C107 & C322 |
| | 408790 | AW580227 | Hs.47860 | neurotrophic tyrosine kinase, receptor, | Seq ID No. C108 & C323 |
| | 408790 | AW580227 | Hs.47860 | neurotrophic tyrosine kinase, receptor, | Seq ID No. C109 & C324 |
| | 408790 | AW580227 | Hs.47860 | neurotrophic tyrosine kinase, receptor, | Seq ID No. C110 & C325 |
| 40 | 450701 | H39960 | Hs.288467 | hypothetical protein XP_098151 (neurine- | Seq ID No. C111 & C326 |
| | 414774 | X02419 | Hs.77274 | plasminogen activator, urokinase | Seq ID No. C112 & C327 |
| | 413691 | AB023173 | Hs.75478 | ATPase, Class VI, type 11B | Seq ID No. C113 & C328 |
| | 453857 | AL080235 | Hs.35861 | Ras-Induced senescence 1 (RIS1) | Seq ID No. C114 & C329 |
| | 449101 | AA205847 | Hs.23016 | G protein-coupled receptor | Seq ID No. C115 & C330 |
| 45 | 429263 | AA019004 | Hs.198395 | ATP-binding cassette, sub-family A (ABC1 | Seq ID No. C116 & C331 |
| | 421474 | U76362 | Hs.104637 | solute carrier family 1 (glutamate trans | Seq ID No. C117 & C332 |
| | 421753 | BE314828 | Hs.107911 | ATP-binding cassette, sub-family B (MDR/ | Seq ID No. C118 & C333 |
| | 408482 | NM_000676 | Hs.45743 | adenosine A2b receptor | Seq ID No. C119 & C334 |
| 50 | 426761 | AI015709 | Hs.172089 | PORIMIN Pro-oncogene receptor inducing me | Seq ID No. C120 & C335 |
| | 429736 | AF125304 | Hs.212680 | tumor necrosis factor receptor superfam | Seq ID No. C121 & C336 |
| | 430985 | AA490232 | Hs.27323 | ESTs, Weakly similar to I78885 serine/th | Seq ID No. C122 & C337 |
| | 431890 | X17033 | Hs.271986 | integrin, alpha 2 (CD49B, alpha 2 subuni | Seq ID No. C123 & C338 |
| | 432583 | AW023624 | Hs.162282 | potassium channel TASK-4; potassium chan | Seq ID No. C124 & C339 |
| 55 | 440872 | X97058 | Hs.16362 | pyrimidinergic receptor P2Y, G-protein c | Seq ID No. C125 & C340 |
| | 453102 | NM_007187 | Hs.31664 | frizzled (Drosophila) homolog 10 | Seq ID No. C126 & C341 |
| | 428513 | BE220806 | Hs.184697 | plexin C1 | Seq ID No. C127 & C342 |
| | 430280 | AA361258 | Hs.237868 | interleukin 7 receptor | Seq ID No. C128 & C343 |
| | 428486 | AW583497 | Hs.184604 | pancreatic polypeptide | Seq ID No. C129 & C344 |
| 60 | 457489 | AK693815 | Hs.127179 | cryptic gene | Seq ID No. C130 & C345 |
| | 432874 | W84322 | Hs.279551 | melanoma inhibitory activity | Seq ID No. C131 & C346 |
| | 445891 | AW391342 | Hs.199460 | DPCR1 protein | Seq ID No. C132 & C347 |
| | 445891 | AW391342 | Hs.199460 | DPCR1 protein | Seq ID No. C133 & C348 |
| | 404882 | | | ortholog of mouse polydomain protein | Seq ID No. C134 & C349 |
| 65 | 429547 | AW009166 | Hs.99376 | FGENESH predicted novel secreted protein | Seq ID No. C135 & C350 |
| | 404287 | | | FGENESH predicted novel CUB-domain conta | Seq ID No. C136 & C351 |
| | 404287 | | | FGENESH predicted novel CUB-domain conta | Seq ID No. C137 & C352 |
| | 404287 | | | FGENESH predicted novel CUB-domain conta | Seq ID No. C138 & C353 |
| 70 | 418318 | U47732 | Hs.84072 | transmembrane 4 superfamily member 3 | Seq ID No. C139 & C354 |
| | 444754 | TB3911 | Hs.11881 | transmembrane 4 superfamily member 4 | Seq ID No. C140 & C355 |
| | 432596 | AJ224741 | Hs.278461 | matrilin 3 | Seq ID No. C141 & C356 |
| | 444008 | BE395085 | Hs.334762 | type I transmembrane protein Fn14 | Seq ID No. C142 & C357 |
| | 428505 | AL035461 | Hs.2281 | chromogranin B (secretogranin 1) | Seq ID No. C143 & C358 |
| | 448844 | AI581519 | Hs.177164 | FGENESH predicted novel cell surface pr | Seq ID No. C144 & C359 |
| | 448844 | AI581519 | Hs.177164 | FGENESH predicted novel cell surface pr | Seq ID No. C145 & C360 |
| 75 | 428392 | HI0233 | Hs.2265 | secretory granula, neuroendocrine protel | Seq ID No. C146 & C361 |
| | 448030 | N30714 | Hs.325960 | membrane-spanning 4-domains, subfamily A | Seq ID No. C147 & C362 |
| | 422109 | 873265 | Hs.1473 | gaslin-releasing peptide | Seq ID No. C148 & C363 |
| | 449048 | Z45051 | Hs.22920 | similar to S68401 (cattle) glucose induc | Seq ID No. C149 & C364 |
| | 417931 | W85642 | Hs.82961 | trefoll factor 3 (intestinal) | Seq ID No. C150 & C365 |
| 80 | 419216 | AJ076718 | Hs.164021 | small inducible cytokine subfamily B (Cy | Seq ID No. C151 & C366 |
| | 426227 | U67058 | Hs.154299 | Human proteinase activated receptor-2 mR | Seq ID No. C152 & C367 |
| | 413554 | AA319146 | Hs.75426 | secretogranin II (chromogranin C) | Seq ID No. C153 & C368 |
| | 445417 | AK001058 | Hs.12680 | a disintegrin-like and metalloprotease w | Seq ID No. C154 & C369 |
| | 426322 | J05068 | Hs.2012 | transcobalamin I (vitamin B12 binding pr | Seq ID No. C155 & C370 |

| | | | | | |
|----|--------|-----------|-----------|--|------------------------|
| 5 | 413718 | BE439580 | Hs.75498 | small inducible cytokine subfamily A (Cy | Seq ID No. C156 & C371 |
| | 431462 | AW583672 | Hs.255311 | granin-like neuroendocrine peptide precu | Seq ID No. C157 & C372 |
| | 416498 | U33632 | Hs.79351 | potassium channel, subfamily K, member 1 | Seq ID No. C158 & C373 |
| | 413095 | AA494369 | Hs.30715 | potassium voltage-gated channel, Isk-rel | Seq ID No. C159 & C374 |
| | 426125 | X87241 | Hs.166994 | FAT tumor suppressor (Drosophila) homolo | Seq ID No. C160 & C375 |
| | 438729 | BE621807 | Hs.351316 | transmembrane 4 superfamily member 1 | Seq ID No. C161 & C376 |
| | 437145 | AF007216 | Hs.5462 | solute carrier family 4, sodium bicarbon | Seq ID No. C162 & C377 |
| | 451820 | AW058357 | Hs.199248 | ESTs | Seq ID No. C163 & C378 |
| 10 | 427557 | NM_002659 | Hs.179857 | plasminogen activator, urokinase recepto | Seq ID No. C164 & C379 |
| | 408308 | AL033377 | Hs.44197 | hypothetical protein DKFZp564D0462 | Seq ID No. C165 & C380 |
| | 421340 | F077B3 | Hs.1369 | decay accelerating factor for complement | Seq ID No. C168 & C381 |
| | 428187 | A087303 | Hs.285529 | G protein-coupled receptor 49 | Seq ID No. C167 & C382 |
| | 428187 | A087303 | Hs.285529 | G protein-coupled receptor 49 | Seq ID No. C168 & C383 |
| 15 | 422278 | AF072873 | Hs.114218 | frizzled (Drosophila) homolog 6 | Seq ID No. C169 & C384 |
| | 446619 | AU076543 | Hs.313 | secreted phosphoprotein 1 (osteopontin, | Seq ID No. C170 & C385 |
| | 419452 | U33635 | Hs.90572 | PTK7 protein tyrosine kinase 7 | Seq ID No. C171 & C386 |
| | 428242 | H55709 | Hs.2250 | leukemia inhibitory factor (cholesterol) | Seq ID No. C172 & C387 |
| | 439659 | AW970780 | Hs.59483 | leucine-rich repeat-containing G protein | Seq ID No. C173 & C388 |
| 20 | 411825 | AK000334 | Hs.352415 | solute carrier family 39 (zinc transport | Seq ID No. C174 & C389 |
| | 412314 | AA825247 | Hs.350084 | G protein-coupled receptor 27 (GPR27) (S | Seq ID No. C175 & C390 |
| | 429150 | AF120103 | Hs.197368 | smoothed (Drosophila) homolog | Seq ID No. C176 & C391 |
| | 419073 | AW372170 | Hs.183918 | transmembrane receptor Unc5H2 mRNA | Seq ID No. C177 & C392 |
| | 411828 | AW161449 | Hs.72290 | wingless-type MMTV integration site fami | Seq ID No. C178 & C393 |
| 25 | 419508 | AW979338 | Hs.90786 | ATP-binding cassette, sub-family C (CFTR | Seq ID No. C179 & C394 |
| | 421779 | A078159 | Hs.108219 | wingless-type MMTV integration site fami | Seq ID No. C180 & C395 |
| | 439668 | A091277 | Hs.302634 | frizzled (Drosophila) homolog 8 | Seq ID No. C181 & C396 |
| | 433336 | AF017986 | Hs.31386 | secreted frizzled-related protein 2 (str | Seq ID No. C182 & C397 |
| | 436972 | AA284879 | Hs.25640 | claudin 3 | Seq ID No. C183 & C398 |
| 30 | 410268 | AA316181 | Hs.61635 | six transmembrane epithelial antigen of | Seq ID No. C184 & C399 |
| | 416370 | N90470 | Hs.203687 | CD38 antigen (p45) | Seq ID No. C185 & C400 |
| | 437062 | AA861697 | Hs.120591 | ESTs | Seq ID No. C186 & C401 |
| | 421481 | AW391972 | Hs.104696 | KIAA1324 protein | Seq ID No. C187 & C402 |
| 35 | 444151 | AW972817 | Hs.128749 | alpha-methylacyl-CoA racemase | Seq ID No. C188 & C403 |
| | 426174 | AA547959 | Hs.115838 | Homo sapiens similar to Echinoidin (LOC1 | Seq ID No. C189 & C404 |
| | 410037 | AB020725 | Hs.58009 | KIAA0918 protein | Seq ID No. C190 & C405 |
| | 425071 | NM_013989 | Hs.154424 | deiodinase, iodothyronine, type II | Seq ID No. C191 & C406 |
| | 421829 | AB018330 | Hs.108708 | calcium/calmodulin-dependent protein kin | Seq ID No. C192 & C407 |
| 40 | 418576 | AW958159 | Hs.302740 | Epithelial calcium channel 2, Cat-like A | Seq ID No. C193 & C408 |
| | 419693 | AA133749 | Hs.301350 | FXFD domain-containing ion transport reg | Seq ID No. C194 & C409 |
| | 419693 | AA133749 | Hs.301350 | FXFD domain-containing ion transport reg | Seq ID No. C195 & C410 |
| | 448988 | Y09763 | Hs.22785 | gamma-aminobutyric acid (GABA) A recepto | Seq ID No. C196 & C411 |
| | 448988 | Y09763 | Hs.22785 | gamma-aminobutyric acid (GABA) A recepto | Seq ID No. C197 & C412 |
| | 448988 | Y09763 | Hs.22785 | gamma-aminobutyric acid (GABA) A recepto | Seq ID No. C198 & C413 |
| 45 | 448988 | Y09763 | Hs.22785 | gamma-aminobutyric acid (GABA) A recepto | Seq ID No. C199 & C414 |
| | 430144 | A1732722 | Hs.98927 | ERGL protein; ERGIC-53-like protein | Seq ID No. C200 & C415 |
| | 408833 | AW612282 | Hs.254835 | ESTs | Seq ID No. C201 & C416 |
| | 452017 | AF109302 | Hs.27495 | prostate cancer associated protein 7 | Seq ID No. C202 & C417 |
| 50 | 415892 | C05837 | Hs.145907 | hypothetical protein FLJ13593 | Seq ID No. C203 & C418 |
| | 415892 | C05837 | Hs.145907 | hypothetical protein FLJ13593 | Seq ID No. C204 & C419 |
| | 443991 | NM_002250 | Hs.10082 | potassium intermediate/small conductance | Seq ID No. C205 & C420 |
| | 425876 | C75094 | Hs.334514 | NG22 protein | Seq ID No. C206 & C421 |
| | 432600 | BE391046 | Hs.278952 | AIM-1 protein | Seq ID No. C207 & C422 |
| 55 | 452955 | AW390282 | Hs.31130 | transmembrane 7 superfamily member 2 | Seq ID No. C208 & C423 |
| | 424339 | BE257148 | Hs.145416 | endoglycan | Seq ID No. C209 & C424 |
| | 426263 | NM_001187 | Hs.155419 | BCL2-interacting killer (apoptosis-induc | Seq ID No. C210 & C425 |
| | 421537 | BE383488 | Hs.105547 | neural proliferation, differentiation an | Seq ID No. C211 & C426 |
| | 434293 | NM_004445 | Hs.3796 | EphB6 | Seq ID No. C212 & C427 |
| 60 | 427715 | BE245274 | Hs.180428 | KIAA1181 protein | Seq ID No. C213 & C428 |
| | 413049 | NM_002161 | Hs.823 | hepsin (transmembrane protease, serine 1 | Seq ID No. C214 & C429 |
| | 414555 | N98569 | Hs.76422 | phospholipase A2, group IIA (platelets, | Seq ID No. C215 & C430 |
| | 422424 | A186431 | Hs.296638 | prostate differentiation factor | Seq ID No. C216 & C431 |
| | 432378 | AA93046 | Hs.146133 | ESTs | Seq ID No. C432 & C433 |
| | 409041 | AB033025 | Hs.50081 | Hypothetical protein, XP_051880 (KIAA119 | Seq ID No. C434 & C435 |

65 TABLE 798

Pkey: Unique Eos probest Identifier number
 CAT number: Gene cluster number
 Accession: Genbank accession numbers

70

Pkey CAT Number Accession
 414991 1785136_1 D78831 C17898 D78853

75 TABLE 79C

Pkey: Unique number corresponding to an Eos probest
 Ref: Sequence source. The 7 digit numbers in this column are Genbank Identifier (GI) numbers. "Dunham 1. et al." refers to the publication entitled "The DNA sequence of human chromosome 22." Dunham 1. et al., Nature (1999) 402:489-495.
 Strand: Indicates DNA strand from which exons were predicted.
 Nt_position: Indicates nucleotide positions of predicted exons.

80

Pkey Ref Strand Nt_position

5 404682 9797231 Minus 40977-41150
 404287 2326514 Plus 53134-53281
 404287 2326514 Plus 53134-53281
 404287 2326514 Plus 53134-53281

Table 80:

Seq ID NO: C1 DNA Sequence
Nucleic Acid Accession #: NM_005814
Coding sequence: 345..1304

| | | | | | | | |
|----|------------|-------------|-------------|------------|-------------|-------------|------|
| 5 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | | |
| 10 | CTACCCCTTT | GTGAGCAGTC | TAGGACTTTG | TACACCTGTT | AAGTAGGGAG | AAGGCAGGGG | 60 |
| | AGGTGGCTGG | TTTAAGGGGA | ACTTGAGGGA | AGTAGGGAG | ACTCTCTCTG | GGACCTTTGG | 120 |
| | AGTAGGTGAC | ACATGAGCCC | AGCCCCAGCT | CACCTGCCAA | TCCAGCTGAG | GAGCTCAOCT | 180 |
| | GCCAAATCCG | CTGAGGCTGG | GCAAGAGTGG | GTGAGAAGAG | GGAAATTCGC | AGGGACCTCC | 240 |
| | AGTTGGGCCA | GGCCAGAACG | TGCTGTAGCT | TTAACCAGAC | AGCTCAGACC | TGTCTGGAGG | 300 |
| 15 | CTGCCAGTGA | CAGGTTAGGT | TTAGGCGAGA | GAAGAAGCAA | GACCATGGTG | GGGAGATGTT | 360 |
| | GGCCTGTGTT | GTGGACACTC | TGTGCACTCA | GGGTGACCGT | CGATGCCATC | TCTGTGGAAA | 420 |
| | CTCCGCAAGG | CGTTCCTGGG | GCTTCGCAGG | GAAGAGTGT | CACCTGCCCC | TGCACCTACC | 480 |
| | ACACTTCCAC | CTCCAGTCGA | GAGGGACTTA | TTCAATGGGA | TAAGCTCCTC | CTCACTCATA | 540 |
| | CGGAAGGGGT | GGTCACTCTG | CGGTTTTCAA | ACAAAACTA | CATCCATGGT | GAGCTTTATA | 600 |
| 20 | AGAAATCGGT | CGACATATCC | AACAATGCTG | AGCAGTCCGA | TGCCATCCATC | ACCAATGTATC | 660 |
| | AGCTGACCAT | GGCTGACAA | GGCACCCTAG | AGTGTCTCTG | CTGCTGATG | TCAGACCTGG | 720 |
| | AGGGCAACAC | CAAGTCACGT | GTCCGCCCTG | TGGTCCCTGT | GCCACCTCTC | AAACCAGAAAT | 780 |
| | GCGGCATCGA | GGGAGAGAGC | ATAATTGGGA | ACAACATCCA | GCTGACCTGC | CAATCAAAGG | 840 |
| | AGGGCTCAAC | AAACCCCTCG | TACAGCTGGA | AGAGGTACAA | CATCCGAAAT | CAGGAGCAGC | 900 |
| 25 | CCCTGGGCTC | CGGAGCTCCA | GGTCAGCCCTG | TCTCCCTGAA | GAATATCTCC | ACAGACACAT | 960 |
| | CGGGTTACTA | CACTCTGATC | TCCAGCAATG | AGGAGGGGAC | GCAGTCTCTG | ATCATCACGG | 1020 |
| | TGGCCGTCAG | ATCTCCCTCC | ATGAAGGTGG | CCCTGTATGT | GGGCATGCGG | GTGGGGCTGG | 1080 |
| | TTTGACGCGT | TTATATCAAT | GGCATCATCA | TCTACTGCTG | CTGCTGCCGA | GGGAGGACG | 1140 |
| | ACAAACATGA | AGACAAGGAG | GATGCAAGGC | CGAACCCGGA | AGCCTATGAG | GAGCCACCGA | 1200 |
| 30 | AGCAGCTAAG | AGAACTTTCC | AGAGAGAGGG | AGGAGGAGGA | TGACTACAGG | CAAGAAGAGC | 1260 |
| | AGAGGAGCAC | TGGCCGTGAA | TCCCGGAGCC | ACCTCGACCA | GTGACAGGCC | AGCAGCAGAG | 1320 |
| | GGCGGCGGAG | GAAGGGTTAG | GGGTTCATTC | TCCCGCTTCC | TGGCCTCCCT | TCTCCTTTCT | 1380 |
| | AAGCCCTGTT | CTCCTGTCCC | TCCATCCCAG | ACATTGATGG | GGACATTTCT | TCCCCAGTGT | 1440 |
| | CAGCTGTGGG | GAACATGGCT | GGCCTGGTAA | GGGGGTCCCT | GTGCTGATCC | TGCTGACCTC | 1500 |
| 35 | ACTGTCCGTG | GAAGTAACCC | TCCCTGGCTG | TGACACCTGG | TGGGGGCCCTG | GCCTTCACCTC | 1560 |
| | AAGACCAAGC | TGCAGCCTCC | ACTTCCCTCG | TAGTTGGCAG | GAGCTCCTGG | AAGCACAGCG | 1620 |
| | CTGAGCATGG | GGGCTCCCA | CTCAGAACTC | TCCAGGGAGG | CGATGCCAGC | CTTGGGGGGT | 1680 |
| | GGGGCTGTCT | CTGCTCACCT | GTGTGCCAG | CACCTGGAGG | GGCACCAGGT | GGAGGGTTTG | 1740 |
| | CACCTCCAC | ATCTTCTCTG | AATGAATGAA | AGAATAAGTG | AGTATGCTTG | GGCCCTGCAT | 1800 |
| 40 | TGGCCTGGCG | TCCAGCTCCC | ACTCCCTTTC | CAACCTCACT | TCCCGTAGCT | GCCAGTATGT | 1860 |
| | TCCAAACCTC | CTTGGGAAGG | CCACCTCCCA | CTCCTGTGTC | ACAGGCCCTG | GGGAGCTTTT | 1920 |
| | GCCCAACAC | TTTCCATCTC | TGCCGTGCAA | TATCGTACCT | GTCCCTCCAG | GCCCATCTCA | 1980 |
| | AATCACAGAG | ATTTCCTTAA | CCCTATCCTA | ATTGTCCACA | TACGTGGAAA | CAATCCTGTT | 2040 |
| | ACTCTGTCCC | ACGTCCAAATC | ATGGGCCACA | AGGCACAGTC | TTCTGAGCGA | GTGCTCTCAC | 2100 |
| 45 | TGTATTAGAG | TCCAGCTCCC | TGGGGCAGG | GCCTGGGCTC | CATGGCTTTT | GCTTTCCTTG | 2160 |
| | AAGCCCTAGT | AGCTGGCGCC | CATCTTAGTG | GGCACTTAAG | CTTAATTGGG | GAAGCTGCTT | 2220 |
| | TGATTGGTTG | TGCTTCCCTT | TCTCTGGTCT | CCTTGAGATG | ATCGTAGACA | CAGGGATGAT | 2280 |
| | TCCCAACCAA | ACCCAGGTAT | TCATTCACTG | AGTTAAACAC | GAATTGATT | AAAGTGAACA | 2340 |
| | CACACAAGGG | AGCTTGCTTG | CAGATGGTCT | GAGTTCCTGT | GTCTTGATTA | TTCTCTCCA | 2400 |
| 50 | GGCCAGAGAT | ATTGGGATGT | CTCCTCAACC | CACATGGGGT | TCTTGGTATG | TCTTGCATCC | 2460 |
| | CGATACCTCA | GCCTTGGCCC | TGCCAGGCC | ATTGGGCTC | TGCTTTCTCT | GTGGGGCTGT | 2520 |
| | CCTGCTGCCC | TCCCACAGCC | TCTTCTGTTT | TGTGAGCAT | TTCTTCTACT | CTTGAGAGCT | 2580 |
| | CAGGAGGGCT | TAGGGCTGCT | TAGGCTCAT | GGACCACTGG | CTGGTCTCAC | CCAAGTGCAG | 2640 |
| | TTTACTATTG | CTATCTTTTC | TGGATGATCA | GAATAAATAT | TCCATAAATC | TATGTCTTAC | 2700 |
| 55 | TTGGGATTTT | TTAAAAAATG | TATATTTTTA | TATATATGTT | TAAATCCTTT | GCTTCATTCC | 2760 |
| | AAATGCTTTC | AGTAATAATA | AAATGTGGGG | TGG | | | 2793 |

Seq ID NO: C2 DNA Sequence
Nucleic Acid Accession #: Eos sequence
Coding sequence: 1..3150

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| 60 | 1 | 11 | 21 | 31 | 41 | 51 | |
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| 65 | ATGGGGAGCC | GGAGGCCAGA | GTCCCTCTCT | CACGCGGTGC | AGCTGGGCTG | GGGCCCCGGG | 60 |
| | CGCCGACCCC | CGCTTSTGCC | GCTGCTGTTG | CTGCTTSTGC | CGCCGCCACC | CAGGGTGGGG | 120 |
| | GGCTTCAACT | TAGACGGGGA | GGCCCCAGCA | GTACTCTGGG | GGCCCCGGGG | CTCCTCTCTC | 180 |
| | GGATTCTCAG | TGAGGTTTTA | CGGCCCGGGA | ACAGACGGGG | TCAAGTGTCT | GGTGGGAGCA | 240 |
| | CCCAAGGCTA | ATACCAAGCA | GCCAGGAGTG | CTGCAGGGTG | GTGCTGTCTA | CTCTGTCTCT | 300 |
| | TGGGGTGCCA | GGCCCAACCA | GTGCCACCCC | ATTGAATTTG | ACAGCAAAAGG | CTCTGGGCTC | 360 |
| 70 | CTGGAGTCC | CATCTGTCAG | CTCAGAGGGA | GAGGAGGCTG | TGGAGTACAA | GTCTCTGTCAG | 420 |
| | TGGTTCGGGG | CAACAGTTGG | AGCCCATGGC | TCTCTCATCT | TGGCATGGGC | TCCACTGTAC | 480 |
| | AGCTGGGGCA | CAGAGAAGGA | GCCACTGAGC | GACCCCGTGG | GCACTGTGCTA | CCTCTCCACA | 540 |
| | GATAACTTCA | CCCGAATTC | GGAGTATGCA | CCCTGCCGCT | CAGATTTCAG | CTGGGCAGCA | 600 |
| | GGACAGGGCT | ACTGCCAAGG | AGGCTTCAGT | GCGGAGTTCA | CCAGAGCTGG | CCGTGTGGTT | 660 |
| 75 | TTAGGTGGAC | CAGGAAGCTA | TTTCTGGCAA | GGCCAGATCC | TGTCTGCCAC | TCAGGAGCAG | 720 |
| | ATTGCAGAA | CTTATTACCC | CGAGTACCTG | ATCAACCTGG | TTCAAGGGCA | GCTGCAGACT | 780 |
| | CGCCAGGCCA | GTTCATCTTA | TGATGACAGC | TACCTAGGAT | ACTCTGTGGC | TGTTGGTGAA | 840 |
| | TTCACTGGTG | ATGACACAGA | AGACTTTGTT | GCTGGTGTGC | CCAAAGGGAA | CCTCACTTAC | 900 |
| | GGCTATGTCA | CCATCTCTAA | TGGCTCAGAC | ATTTCATCCC | TCTACACTTT | CTCAGGGGAA | 960 |
| 80 | CAGATGGGCT | CCCTACTTGG | CTATGCACTG | GCGGCCACAG | ACGTCATATG | GGAGCGGCTG | 1020 |
| | GATGACTTGC | TGGTGGGGGC | ACCCCTGCTC | ATGGATCGGA | CCCTCTGACG | GCGGCTCAG | 1080 |
| | GAGGTGGGCA | GGTCTTACGT | CTACCTGTCG | CACCCAGCCG | GCATAGAGCC | CACGCTCACC | 1140 |
| | CTTACCCCTA | CTGGCCATGA | TGAGTTTGGC | CGATTGGCA | GCTCCTTGAC | CCCCTTGGGG | 1200 |
| | GACCTGGACC | AGGATGGCTA | CAATGATGTG | GCCATCGGGG | CTCCCTTTGG | TGGGAGAGCC | 1260 |
| | CAGCAGGGAG | TAGTGTGTTG | ATTCCCTGGG | GSCCAGGAG | GGCTGGGCTC | TAAACCTTCC | 1320 |

5 CAGGTTCTGC AGCCCTGTG GGCAGCCAGC CACACCCAG ACTTCTTTGG CTCTGCCCTT 1380
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 CTGTTCTCTGG CCTCCAGGCA GGCACCCCTG ACCCAGACCC TGCTCATCCA GAATGGGGCT 1740
 CGAGAGGATT GCAGAGAGAT GAAGATCTAC CTCAGGAACG AGTCAGAAIT TCGAGACAAA 1800
 10 CTCTCGCGGA TTCACATGCG TCTCAACTTC TCCTTGGACC OCCAAGCCCC AGTGGACAGC 1860
 CACGGCCTCA GSCCAGCCCT ACATTATCAG AGCAAGAGCC GGATAGAGGA CAAGGCTCAG 1920
 ATCTTGTCTGG ACTGTGGAGA AGACAACATC TGTGTGCTGG ACCTGCAGCT GGAAGTGTIT 1980
 GGGGAGCAGA ACCATGTGTA CCTGGGTGAC AAGAATGCC TGAACTCAC TTTCCATGCC 2040
 CAGAATGTGG GTGAGGGTGG CGCCTATGAG GCTGAGCTTC GGGTCACTGC CCTCCAGAG 2100
 15 GCTGAGTACT CAGGACTCGT CAGACACCCA GGGAACTTCT CCAGCCTGAG CTGTCACTAC 2160
 TTTGCGGTGA ACCAGAGCCG CTGCTGTGGT TGTGACCTGG GCAACCCCAT GAAGGCAGGA 2220
 GCCAGTCTGT GGGGTGGCCT TCGGTTTACA GTCCCTCATC TCCGGGACAC TAAGAAACCC 2280
 ATCCAGTTTG ACTTCAGAT CCTCAGCAAG AATCTCAACA ACTCGCAAG CGACGTGGTT 2340
 TCCTTTGGGC TCTCGGTGGA GGTCTAGGCC CAGTCAACC TGAACTGTGT CTCCAAGCCT 2400
 20 GAGGCTAGTC TATTTCCAGT AAGCAGCTGG CATCCCGAG ACCAGCTTCA GAAGGAGGAG 2460
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 25 TCTGCTTCTT CCGGACCTCA GATCTGAAA TGCTCGGAGG CTGAGTGTIT CAGGCTGCTC 2760
 TGTGAGCTGG GSCCCTGCA CCAACAAGAG AGCCAAAGTC TGCAGTTGCA TTTCCGAGTC 2820
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 TACAAAGCCC TGAAGTATGC CTACCGAATC CTGCTCGGCC AGCTGCCCA AAAAGAGCGT 2940
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 30 ATCATCTCC TAGCCATCCT GTTGGCCCTC CTGCTCTAG GTCTACTCAT CTACATCTC 3060
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 CTCAGCCTC CAGCCACCTC TGATGCTTGA 3150

Seq ID NO: C3 DNA Sequence

Nucleic Acid Accession #: NM_002421.2

Coding sequence: 1..1410

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| ATGCACAGCT | TTCTCCACT | GCTGCTGCTG | CTGTTCTGGG | GTGTGGTGTG | ACACAGCTTC | 60 |
| CCAGCGACTC | TAGAAACACA | AGAGCAAGAT | GTGGACTTAG | TCCAGAAATA | CCTGGAAAAA | 120 |
| TACTACAACC | TGAAGAATGA | TGGGAGGCAA | GTTGAAAAGC | GGAGAAATAG | TGGCCCACTG | 180 |
| GTTGAAAAAT | TGAAGCAAT | GCAGGAATTC | TTTGGGCTGA | AAGTGAAGTG | GAAACCCAGT | 240 |
| GCTGAAACCC | TGAAGTGAT | GAAGCAGCCC | AGATGTGGAG | TGCTTGATGT | GGCTCAGTTT | 300 |
| GTCTCTACTG | AGGGGAACCC | TGCTGGGAG | CAACACATC | TGACCTACAG | GATTGAAAAT | 360 |
| TACAGGCCAG | ATTTGCCAG | AGCAGATGTG | GACCATGCCA | TTGAGAAAGC | CTTCCAACTC | 420 |
| TGGAGTAATG | TCACACCTCT | GACATTCAAC | AAGGTCTCTG | AGGGTCAAGC | AGACATCATG | 480 |
| ATATCTTTTG | TCAGGGGAGA | TCATCGGGAC | AACCTCTCCT | TTGATGGACC | TGGAGGAAAT | 540 |
| CTTGCTCATG | CTTTTCAACC | AGGCCAGGT | ATTGGAGGGG | ATGCTCATTT | TGATGAAGAT | 600 |
| GAAAGGTGGA | CCACAAATT | CAGAGATAC | AACITACATC | GTGTTGCGGC | TCATGAACTC | 660 |
| GGCCATTCTC | TTGACTCTC | CCATTCTACT | GATATCGGGG | CTTTGATGTA | CCCTAGCTAC | 720 |
| ACCITCAGTG | GTGATGTTCA | GCTAGCTCAG | GATGACATTG | ATGGCATCCA | AGCCATATAT | 780 |
| GGAGCTTCCC | AAAATCTCTG | CCAGCCCATC | GGCCCAAAA | CCCCAAAAGC | ATGTGACAGT | 840 |
| AAGCTAACC | TTGATGCTAT | AACACGAT | CGGGGAGAG | TGATGTTCTT | TAAAGACAGA | 900 |
| TTCTACATGC | GCACAAATCC | CTTCTACCCG | GAAGTTGAGC | TCAATTTCT | TTCTGTTTTT | 960 |
| TGGCCACAA | TGCAAAATGG | GCTTGAAGCT | GCTTACBAAT | TTGCCGACAG | AGATGAAGTC | 1020 |
| CGGTTTTTCA | AAGGGAATTA | GTACTGGGCT | GTTCAGGGAC | AGAATGTGCT | ACACGGATAC | 1080 |
| CCCAGGACA | TCACAGCTAT | CTTGGCTTTC | CTTAGAATCT | TGAAGCATAT | CGATGCTGCT | 1140 |
| CTTTCTGAGG | AAAACACTGG | AAAACCTTAC | TTCTTTGTG | CTAACAAATA | CTGGAGGTAT | 1200 |
| GATGATATA | ACGATCTAT | GGATCCAGGT | TATCCCAAAA | TGATAGCACA | TGACTTTCTT | 1260 |
| GGAAATGGCC | ACAAAGTTGA | TGCAGTTTTC | ATGAAAGATG | GATTTTTCTA | TTTCTTTTCT | 1320 |
| GGAAACAGAC | AATACAAAT | TGATCCTAAA | ACGAAGAGAA | TTTGTACTCT | CCAGAAAGCT | 1380 |
| AATAGCTGGT | TCAACTGCGAG | GAATAATTAG | | | | 1410 |

Seq ID NO: C4 DNA Sequence

Nucleic Acid Accession #: Bos sequence

Coding sequence: 1..1410

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| CCAGCGACTC | TAGAAACACA | AGAGCAAGAT | GTGGACTTAG | TCCAGAAATA | CCTGGAAAAA | 120 |
| TACTACAACC | TGAAGAATGA | TGGGAGGCAA | GTTGAAAAGC | GGAGAAATAG | TGGCCCACTG | 180 |
| GTTGAAAAAT | TGAAGCAAT | GCAGGAATTC | TTTGGGCTGA | AAGTGAAGTG | GAAACCCAGT | 240 |
| GCTGAAACCC | TGAAGTGAT | GAAGCAGCCC | AGATGTGGAG | TGCTTGATGT | GGCTCAGTTT | 300 |
| GTCTCTACTG | AGGGGAACCC | TGCTGGGAG | CAACACATC | TGACCTACAG | GATTGAAAAT | 360 |
| TACAGGCCAG | ATTTGCCAG | AGCAGATGTG | GACCATGCCA | TTGAGAAAGC | CTTCCAACTC | 420 |
| TGGAGTAATG | TCACACCTCT | GACATTCAAC | AAGGTCTCTG | AGGGTCAAGC | AGACATCATG | 480 |
| ATATCTTTTG | TCAGGGGAGA | TCATCGGGAC | AACCTCTCCT | TTGATGGACC | TGGAGGAAAT | 540 |
| CTTGCTCATG | CTTTTCAACC | AGGCCAGGT | ATTGGAGGGG | ATGCTCATTT | TGATGAAGAT | 600 |
| GAAAGGTGGA | CCACAAATT | CAGAGATAC | AACITACATC | GTGTTGCGGC | TCATGAACTC | 660 |
| GGCCATTCTC | TTGACTCTC | CCATTCTACT | GATATCGGGG | CTTTGATGTA | CCCTAGCTAC | 720 |
| ACCITCAGTG | GTGATGTTCA | GCTAGCTCAG | GATGACATTG | ATGGCATCCA | AGCCATATAT | 780 |
| GGAGCTTCCC | AAAATCTCTG | CCAGCCCATC | GGCCCAAAA | CCCCAAAAGC | ATGTGACAGT | 840 |
| AAGCTAACC | TTGATGCTAT | AACACGAT | CGGGGAGAG | TGATGTTCTT | TAAAGACAGA | 900 |

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10

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TTCTACATGC GCACAAATCC CTTCTACCCG GAAGTTGAGC TCAATTTTCAT TTCTGTTTTT 960
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CGGTTTTTCA AAGGGAAATA GTACTGGGCT GTTCAGGGAC AGAATGTGCT ACACGGATAC 1080
CCCAGGACAC TCTACAGCTC CTTTGCGTTC CTTAGAACTG TGAAGCATAT CGATGCTGCT 1140
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GGAATTGGCC ACAAGATTGA TGCAGTTTTC ATGAAAGATG GATTTTCTA TTCTTTTCAT 1320
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Seq ID NO: C5 DNA Sequence
Nucleic Acid Accession #: NM_014331.2
Coding sequence: 1..1506

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GGAACAACCTA TAAAGAAATC TGGAGGTGAT TACACATATA TTTTGGAGT CTTTGTGCTA 360
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Seq ID NO: C6 DNA Sequence
Nucleic Acid Accession #: NM_003246.1
Coding sequence: 112..3624

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| | GAAGACATCC | TCAGGAACAA | AGGCTGCTCC | AGCTCTACCA | GTGTCTCTCT | CACCTTGAC | 840 |
| | AACAACGTGG | TGAATGGTTC | CAGCCCTGCC | ATCCGCACTA | ACTACATTGG | CCACAAGACA | 900 |
| 10 | AAGGACTTGC | AAGCCATCTG | CGGCATCTCC | TGTGATGAGC | TGTCCAGCAT | GGTCTGGAA | 960 |
| | CTCAGGGGCC | TGCGCACCAT | TGTGACCACG | CTGCAGGACA | GCATCCGCAA | AGTGAAGTAA | 1020 |
| | GAGAACAAG | AGTTGGCCAA | TGAGCTGAGG | CGGCCCTCCC | TATGCTATCA | CAACGGAGTT | 1080 |
| | CAGTACAGAA | ATAACGAGGA | ATGGACTGTT | GATAGCTGCA | CTGAGTGTCA | CTGTCAAGAC | 1140 |
| | TCAGTTACCA | TCTGCAAAA | GGTGTCTGCG | CCCATCATGC | CCTGTCTCAA | TGCCACAGTT | 1200 |
| 15 | CCTGATGGAG | AATGCTGTCC | TGCTGTGTGG | CCGAGGAGCT | CTGGGAGCBA | TGGCTGGTCT | 1260 |
| | CCATGGTCCG | ACGTGACCTC | CTGTTCTACG | AGCTGTGGCA | ATGGAAATTC | GCAGCGGGGC | 1320 |
| | CGCTCTCTGG | ATAGCCTCAA | CAACCGATGT | GAGGGCTCCT | CGGTCCAGAC | ACGGAAGCTG | 1380 |
| | CAATTTCAGG | AGTGTGACAA | AAGATTTAAG | CAGGATGGTG | GCTGGAGCCA | CTGGTCCCCG | 1440 |
| | TGGTCATCTT | GTTCTGTGAC | ATGTGTTGAT | GGTGTGATCA | CAAGGATCCG | GCTCTGCAAC | 1500 |
| 20 | TCCTCCAGCC | CCCAGATGAA | TGGGAAACCC | TGTGAAGGCG | AAGCGCGGGA | GACCAAGGCC | 1560 |
| | TGCAAGAAAG | ACGCTCGCCC | CATCAATGGA | GGCTGGGGTC | CTTGGTCAAC | ATGGGACATC | 1620 |
| | TGTTCTGTGA | CCTGTGAGGG | AGGGGTACAG | AAACGTAGTC | GTCTCTGCAA | CAACCCCGCA | 1680 |
| | CCCCAGTTTG | GAGGCAAGGA | CTGGCTTGCT | GATGTAACAG | AAAACACAGT | CTGCAACAG | 1740 |
| | CAGGACTGTC | CAATTGATGG | ATGCCCTGTC | AATCCCTGCT | TTGCCGGCGT | GAAGTGTACT | 1800 |
| 25 | AGCTACCCCT | ATGGCAGCTG | GAATGTGTTT | GCTTGTCCCC | CTGGTTCACG | TGGAAATGGC | 1860 |
| | ATCCAGTGCA | CAGATGTTGA | TGAGTGTCAA | GAAGTGCCCT | ATGGCTGCTT | CAACCACAAT | 1920 |
| | GGAGAGCACC | GGTGTGAGAA | CACGGACCCC | GGCTACAACT | GCCTGCCCTG | CCCCCACGCG | 1980 |
| | TTCAACCGGT | CTCAGCCCTT | CGGCCAGGGT | GTGGAACATG | CCACGGCCAA | CAACACGGTG | 2040 |
| | TGCAGCCCCC | GTAACCCCTG | CACGGATGGG | ACCCACGACT | GCAACAAGAA | CGCCAAAGTG | 2100 |
| 30 | AACTACCTGG | GCCACTATAG | CGACCCCATG | TACCGCTGGG | AGTGCAGACC | TGGCTACGCT | 2160 |
| | GGCAATGGCA | AGTGTGCGGG | GGAGGACACA | GACCTGGATG | GCTGGCCCAA | TGAGAACTCG | 2220 |
| | GTGTGCGTGG | CCAATGGCAG | TTACCATGTC | AAAAAGGATA | ATTGCCCCAA | CCTTCCCAAC | 2280 |
| | TCAGGGCAGG | AAGACTATGA | CAAGGATGGA | ATTGGTGATG | CCTGTGATGA | TGACGATGAC | 2340 |
| | AATGATAAAA | TTCCAGATGA | CAGGACACAC | TGTCCATTCC | ATTACAACCC | AGCTCAGTAT | 2400 |
| 35 | GACTATGACA | GAGATGATGT | GGGAGACGCG | TGTGACAACT | GTCCCTACAA | CCACAACCCA | 2460 |
| | GATCAGGCAG | ACACAGACAA | CAATGGGGAA | GGAGACGCCCT | GTGCTGCAGA | CATTGATGGA | 2520 |
| | GACGGTATCC | TCAATGAAAG | GGACAACATG | CAGTACGTCT | ACAATGTGGA | CCAGAGAGAC | 2580 |
| | ACTGATATGG | ATGGGGTTGG | AGATCAGTGT | GACAATTGCC | CCTTGGAAAC | CAATCCGAT | 2640 |
| | CAGCTGGACT | CTGACTCAGA | CGGCATTTGA | GATACCTGTG | ACACCAATCA | GGATATTGAT | 2700 |
| 40 | GAGATGGGCC | ACCAGAACAA | TCTGGACAAC | TGTCCCTATG | TGCCCAATGC | CAACACGCGT | 2760 |
| | GACCATGACA | AAGATGGCAA | GGGAGATGCC | TGTGACACAG | ATGATGACAA | CGATGGCATT | 2820 |
| | CCTGATGACA | AGGACAACAT | CAGACTCGTG | CCCAATCCCG | ACCAGAGGAA | CTCTGACGGC | 2880 |
| | GATGTGCGAG | GTGATGCGTG | CAAGATGAT | TTTGACCATG | ACAGTGTGCC | AGACATCGAT | 2940 |
| | GACATCTGTC | CTGAGAATGT | TGACATCAAT | GAGACCGATT | TCCGCGGATT | CCAGATGATT | 3000 |
| 45 | CCCTGTGACC | CCAAAGGGAC | ATCCCAAAAT | GACCCTAAT | GGGTGTGACG | CCATCAGGGT | 3060 |
| | AAAGAACTCG | TCCGACTGCT | CAACTGTGAT | CCTGGACTCG | CTGTAGGTTA | TGATGATTTT | 3120 |
| | AATGCTGTGG | ACCTCAGTGG | CACCTTCTTC | ATCAACAACG | AAAGGGACGA | TGACTATGCT | 3180 |
| | GGATTGTGCT | TTGGCTACCA | GTCCAGCAGC | CGCTTTTATG | TGTGATGTG | GAAGCAAGTC | 3240 |
| | ACCCAGTCCCT | ACTGGGACAC | CAACCCACCG | AGGGCTCAGG | GATACCTCGG | CCCTTCTGTG | 3300 |
| 50 | AAAGTTGTAA | ACTCCACCA | AGGGCCTGGC | GAGCAGCTGC | GGAAACGCCCT | GTGGCACACA | 3360 |
| | GGAAACACCC | CTGGCCAGGT | GCGCACCCCG | TGGCATGACC | CTCGTCACAT | AGGCTGGAAA | 3420 |
| | GATTTCAACG | CCTACAGATG | GCCTCTCAGC | CACAGGCCAA | AGACGGGTTT | CATTAGAGTG | 3480 |
| | GTGATGATG | AAGGGAAGAA | AATCATGGCT | GACTCAGGAC | CCATCTATGA | TAAACCTAT | 3540 |
| | GCTGTGGGTA | GACTAGGGTT | GTTGTCTCTC | TCTCAAGAAA | TGGTGTCTCT | CTCTGACCTG | 3600 |
| 55 | AAATACGAAT | GTAGAGATCC | CTAATCATCA | AATGTGTGAT | TGAAAGAGCT | ATCATTAACC | 3660 |
| | AATGCTGCTG | TGTACCTCTC | TGGAACATAT | GGCTTGAGAA | AACCCCGAGG | ATCACTCTCT | 3720 |
| | CTTGGCTTCC | TTCTTTTCTG | TGCTTGCATC | AGTGTGGACT | CCTAGAAAGT | GCGACCTGCC | 3780 |
| | TCAAGAAAAT | GCAAGTTTCA | AAAACAGACT | CATCAGCATT | CAAGCTTCCA | TGAATAAGAC | 3840 |
| | ATCTTCCAGG | CATATAACAA | ATTGCTTTGG | TTTCCCTTTG | AAAAAGCATC | TACTTGCTTC | 3900 |
| 60 | AGTGGGAAG | GTGCCCATTC | CACCTGCGCT | TTGTACAGAA | GCAGGGTGCT | ATTGTGAGGC | 3960 |
| | CATCTCT | | | | | | 3967 |

Seq ID NO: C7 DNA Sequence
Nucleic Acid Accession #: NM_002192
Coding sequence: 86..1366

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|----|-------------|-------------|------------|-------------|------------|------------|------|
| 65 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | TCCACACACA | CAAAAAACCT | GCGGTGAGG | GGGAGGAAA | AGCAGGGCCT | TTAAAAAGGC | 60 |
| 70 | AATCAACAACA | ACTTTTGTCTG | CCAGGATGCC | CTTGTCTTGG | CTGAGAGGAT | TTCTGTGGGC | 120 |
| | AAGTTGCTGG | ATTATAGTGA | GGAGTTCCCC | CACCCAGGA | TCCGAGGGGC | ACAGCGGGGC | 180 |
| | CCCCGACTGT | CCGTCTCTGTG | CGCTGGCCCG | CCTCCCAAGG | GATGTACCCA | ACTCTAGGCC | 240 |
| | AGAGATGGTG | GAGGCGGTCA | AGAAGCACAT | TTTAAACATG | CTGCACTTGA | AGAAGAGACC | 300 |
| | CGATGTCAAC | CAGCCGGTAC | CCAAGGCGGC | GCTTCTGAAC | GCGATCAGAA | AGCTTCATGT | 360 |
| | GGGCAAGATC | GGGAGAACG | GGTATGTGGA | GATAGAGGAT | GACATTGGAA | GGAGGGCAGA | 420 |
| 75 | AATGAATGAA | CTTATGGAGC | AGACCTCGGA | GATCATCAGC | TTTGGCGAGT | CAGGAACAGC | 480 |
| | CAGGAAGACG | CTGCATCTCG | AGATTTCCAA | GGAAAGGCAGT | GACCTGTCTG | TGGTGGAGCG | 540 |
| | TGCAGAGTCT | TGGCTCTTCC | TAAAGTCCC | CAAGGCCAAC | AGGAACAGGA | CCAAGTCAAC | 600 |
| | CATCCGCTTC | TTCCAGCAGC | AGAAGCACCC | GCAGGGCAGC | TTGACACAGG | GGGAGACGGC | 660 |
| | CGAGGAAGTG | GGCTTAAAGG | GGGAGAGGAG | TGAACCTGTYG | CTCTCTGAAA | AAGTAGTAGA | 720 |
| 80 | CGCTCGGAAG | AGCAGCTGTC | ATGCTCTTCC | TGCTCTCAGC | AGCATCCAGC | GCTTGTCTGA | 780 |
| | CCAGGGCAGG | AGCTCCCTGG | ACGTTCCGAT | TGCCTGTGAG | CAGTCCAGAG | AGAGTGGCGC | 840 |
| | CAGCTTGGTT | CTCTTGGGGA | AGAAGAGAGG | GAAAGAGAGG | GAGGGGGGAG | GGAAAAAGAA | 900 |
| | GGGCGGAGGT | GAGGTTGGGG | CAGGAGCAGA | TGAGGAAAAG | GAGCAGTCCG | ACAGACCTTT | 960 |
| | CCTCATGCTG | CAGGCCCGGC | AGTCTGAAGA | CCACCTTCAT | CGCCGGCTTC | GGCGGGGCTT | 1020 |

5
10
15

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GGAGTGTGAT GGCAAGGTCA ACATCTGCTG TAAGAAACAG TTCTTTGTCA GTTTCAGGA 1080
CATCGGCTGG AATGACTGGA TCATTGCTCC CTCTGGCTAT CATGCCAACT ACTGCGAGGG 1140
TGAGTGGCCG AGCCATATAG CAGGCACGTC CGGGTCTCTA CTGTCTCTCC ACTCAACAGT 1200
CATCAACCAC TACCGCATGC GGGGCCATAG CCCCTTTGCC AACCTCAAAT CGTGCTGTGT 1260
GCCCAACCAAG CTGAGACCCA TGTCCATGTT GTACTATGAT GATGGTCAAA ACATCATCAA 1320
AAAGGACATT CAGAACATGA TCGTGGAGGA GTGTGGGTGC TCATAGAGTT GCCCAGCCCA 1380
GGGGGAAAGG GAGCAAGAGT TGTCCAGAGA AGACAGTGGC AAAATGAAGA AATTTTAAAG 1440
GTTTCTGAGT TAACCAAGAA AATAGAAAT AAAACAAAA CAAAAAATAA AAAAAACAA 1500
AAAAAACAA AAGTAAATTA AAAACAAACC TGATGAAACA GATGAAACAG ATGAAGGAAG 1560
ATGTGGAAAT CTAGCCTGCG CTAGCCAGG GCTCAGAGAT GAAGCAGTGA AGAGACAGAT 1620
TGGGAGGGAA AGGGAGAAAT GGTACCCCTT TATTTCTCTT GAAATCACAC TGATGACATC 1680
AGTTGTITAA ACGGGGTATT GTCCCTTCCC COCTTGAGGT TCCCTTGTA GCTTGAATCA 1740
ACCAATCTGA TCTGCAGTAG TGTGGACTAG AACCAACCAA ATAGCATCTA GAAAGCCATG 1800
AGTTGAAAG GCGCCATCAC AGGCACCTTC CTAGCCTAAT 1840

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Seq ID NO: C8 DNA Sequence
Nucleic Acid Accession #: NM_000095.1
Coding sequence: 26..2299

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55
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65

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1 11 21 31 41 51
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OCTGGCTGCC CTGCGGCGGT CCGGACAGGG CCAGAGCCCG TTGGGCTCAG ACCTGGGCCCC 120
GCAGATGCTT CCGGAAGTGC AGGAAACCAA CGCGGCGCTG CAGGACGTGC GGGACTGGCT 180
GGGCAGCAG GTACGGGAGA TCAGTTTCTT GAAAAACAG GTGATGGAGT GTGACGCTG 240
CGGATGTCAG CAGTCACTAC GCACCGGCTT ACCCAGGTG CCGCCCTGCT TCCACTGCGC 300
GCCCGGCTTC TGTCTCCCGG GCGTGGCTTG CATCCAGAGC GAGAGCGGCG GCGCTGCGG 360
CCCTGCTCCC CGGGCTTTTA CGGGCAACCG CTCGCACTGC ACCGACGTCA ACGAGTCAA 420
CGCCACCCCC TGTCTCCCGG GAGTCCGCTG TATCAACACC AGCCCGGGGT TCGCTGCGA 480
GGCTTGCCCG CCGGGGTACA GCGGCCCCAC CCACCGGGC GTGGGGCTGG CTTCGTCCTA 540
GGCCAACAAG CAGGTTTGA CCGACATCAA CGAGTGTGAG ACCGGCCAAC ATAAGTGGT 600
CCCAACTTCC GTGTGCATCA ACACCGGGG CTCTCTCCAG TCGCGCCCGT GCCAGCCCG 660
CTTCGTGGGC GACCAAGCGT CCGGCTGCCA GCGCGGCGCA CAGCGCTTCT GCGCCGACGG 720
CTCGCCAGC GAGTGCACAG AGCATGCAGA CTGCGTCTTA GAGCGCGATG GCTCGGGTTC 780
GTGCGTGTGT CCGGTTGGCT GGGCCGCAA CGGATCCTCT TGTGCTCGCG ACACGTGACT 840
AGACCGCTTC CCGGACGAGA AGCTGCGCTG CCGGAGCCCG CAGTCCGTA AGGACAACCT 900
CGTACTGTG CCGACTCAG GGCAGGAGGA TGTGGACCGG GATGGCATCG GAGACGCTG 960
CGATCCGAT GCGACCGGG ACGGGGTCCC CAATGAAAAG GACAACTGCC CGCTGGTGG 1020
GAAACCCAGC CAGCGCAACA CCGACGAGGA CAGTGGGGC GATGCGTGGC ACAACTGCC 1080
GTCCCAAGAG AACGACGACT AAAAGGACAC AGACCGAGC GCGCGGGGCG ATGCGTGGCA 1140
CGACGACATC GACCGGAGCC GAGTCCGCAA CAGGCGGAC AACTGCCCTA GGGTACCCAA 1200
CTCAGACCAAG AAGGACAGTG ATGGCGATGG TATAGGGGAT GCGTGTGACA ACTGTCCCCA 1260
GAAGAGCAAG CAGATCTAGG CGGATGTGGA CCACTACTTT GTGGGAGATG CTTGTGACAG 1320
CGATCAAGAC CAGGATGGAG ACGGACATCA GGAATCTGGG GACAACTGTC CCACGGTGCC 1380
TAACAGTGGC CAGGAGGACT CAGACCAAGA TGCCAGGGT GATGCTTGGC ACGACGACGA 1440
CGACAATGAC GAGTCCCTG ACAGTCCGGA CAATGCGCG CTGCTGCTTA ACCCGGCCA 1500
GGAGGACGCG GACAGGGAG GCGTGGGCGA CGTGTGCCAG GACGACTTTG ATGACAGCAA 1560
GGTGTAGAC AAGATCGAGG TGTGTCCGGA GAACGCTGAA GTCACTCTCA CCGACTTCA 1620
GGCCTTCCAG ACAGTCTGTC TGGACCGGGA GGGTGGCGCG CAGATTGACC CCAACTGGGT 1680
GGTGTCAAC CAGGAGAGGG AGATCGTGA GACATGAAC AGCGACCCAG GCTTGGCTGT 1740
GGTTTACACT GCGTTCAATG GCGTGGACTT CGAGGACAG TTCCATGTGA ACACGGTCAC 1800
GGATGACGAC TATGCGGGCT TCATCTTTGG CTACCGAGAC AGCTCCAGCT TCTACGTTGT 1860
CATGTGGAAG ACAGTGGGCA AAACGTATTG GCAGGCGAAC CCCTTCCGGT CTGTGGCGCA 1920
GCCGTGGCACT CAATCAAGG CTGTGAAGTC TTCCACAGGC CCGGGGGAAC AGCTGCGGAA 1980
GCCCTGTGG CATACAGGAG ACACAGATC CCAGGTGGG CTGCTGTGGA AGGACCGCG 2040
AAACGTGGGT TGAAGGACA AGAAGTCTTA TCGTTGGTTC CTGACGACCC GCGCCCAAGT 2100
GGCTACATC AGGGTGGAT TCATATGAGG CCTTGAGCTG GTGGCGGACA GCAACGTGGT 2160
CTTGGACACA ACCATGCGGG GTGGCGGCTT GCGGGTCTTC TGCTTCTCCC AGGAGAATC 2220
CATCTGGGCC AACCTGCGTT ACCGCTGCAA TGACACCATC CAGAGGACT ATGAGACCCA 2280
TCAGCTGGCG CAGGCTAGG GACCAAGGTG AGGACCGGCC GATGACAGC CACCTCACC 2340
GCGCTGGAT GGGGCTCTG CACCCAGGCC AAGGGGTGGC CGTCTGAGG GGGAGGTGAG 2400
AAGGGCTCAG AGAGACAAA ATAAAGTGTG TGTGAGGG 2439

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Seq ID NO: C9 DNA Sequence
Nucleic Acid Accession #: XM_057014
Coding sequence: 143..874

70
75
80

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1 11 21 31 41 51
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CGCGGCGGAG CAGACGCTG ACCACGTTCC TCTCTCGGT CTCTCCGCG TCCAGCTCCG 120
CGCTGCCCGG CAGCGCGGAG CCATGCGACC CCAGGCGCCC GCGGCTCCG CGCAGCGGCT 180
CGCGGCGCTC CTGCTGCTCC TGTGCTGCA CCTGCCCGCG CCGTGGAGCG CCTCTGAGAT 240
CCCCAAGGGG AAGCAAAAGG GGCAGCTCG GCAGAGGGAG GTGGTGGACC TGTATATGG 300
AATGTGCTTA CAAGGGCCAG CAGGAGTCCC TGGTGGAGAC GGGAGCCCTG GGGCCAATG 360
CATTCGGGT ACACCTGGCA TCCAGGTGG GATGGATTG AAAGGAGAAA AGGGGAATG 420
TCTGAGGGAA AGCTTTGAGG AGTCTTGGAC ACCCACTAC AAGCAGTGT CATGGAGTTC 480
ATTGAATTAT GGCATAGATC TTGGGAAAAT TGCGAGTGT ACATTTACAA AGATGCGTTC 540
AAATAGTGCT CTAAGAGTTT TGTTCAGTGG CTCACTTCGG CTAAATGCA GAAATGCATG 600
CTGTACGCGT TGGTATTTCA CATTCAGTGG AGCTGAATGT TCAGGACCTC TTCCCATTTG 660
AGCTATATTT TATTGGACC AAGGAAGCCC TGAAATGAAT TCAACAAATA ATATTCATCG 720

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| | | | | | | | |
|----|-------------|-------------|------------|------------|------------|------------|------|
| 5 | CACCTCTCTCT | GTGGAAGGAC | TTTGTGAAGG | AATTGGTGCT | GGATTAGTGG | ATGTTGCTAT | 780 |
| | CTGGGTGGC | ACCTGTTGAG | ATTACCCAAA | AGGAGATGCT | TCTACTGGAT | EGAATTCAGT | 840 |
| | TTCTCGCATC | ATTATTGTAAG | AACATACCAA | ATAAATGCTT | TAATTTTCAT | TTGCTACCTC | 900 |
| | TTTTTTTAT | ATGCCCTGGA | ATGGTTCACT | TAAATGACAT | TTTAAATAAG | TTTATGTATA | 960 |
| | CATCTGAATG | AAAAGCAAG | CTAATATGT | TTACAGACCA | AAGTGTGATT | TCACACTGTT | 1020 |
| | TTTAAATCTA | GCATTATTC | TTTTCCTTCA | ATCAAAAGTG | GTITCAATAT | TTTTTTTAGT | 1080 |
| | TGGTTAGAA | ACTTTCCTCA | TAGTCACATT | CTCTCAACCT | ATAATTTGGA | ATATTGTTGT | 1140 |
| | GGTCTTTTGT | TTTTTCTCTT | AGTATAGCAT | TTTTAAAAAA | ATATAAAGC | TACCAATCTT | 1200 |
| 10 | TGTACAATTT | GTAAATGTTA | AGAATTTTTT | TTATATCTGT | TAAATAAAAA | TTATTTCCAA | 1260 |
| | CAACCTTAAA | AAAAAATAAA | AAAA | | | | 1284 |

Seq ID NO: C10 DNA Sequence

Nucleic Acid Accession #: NM_003225

Coding sequence: 11..295

| | | | | | | | |
|----|------------|------------|------------|------------|------------|------------|-----|
| 15 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | ATCCTGACT | CGGGGTGCG | TTTGAGCAG | AGAGGAGGCA | ATGGCCACCA | TGGAGAACAA | 60 |
| | GGTGATCTGC | GGCCGTGCTC | TGGTGTCCAT | GCTGGCCCTC | GGCAGCCCTG | CCGAGGCCCA | 120 |
| 20 | GACAGAGACG | TGTACAGTGG | CCCCCGTGA | AAGACAGAA | TGTGGTTTTC | CTGGTGTGAC | 180 |
| | GCCTCCACG | TGTGCAATA | AGGGCTGCTG | TTTGGAGGAC | ACCGTTCGTG | GGGTCCCTTG | 240 |
| | GTGCTTCTAT | CTTAATAGCA | TGCAAGTCCC | TCCAGAAAGG | GAGTGTGAAT | TTTAGACACT | 300 |
| | TCTGACGGGA | TCTGCTGCA | TCTTGAAGGG | GTGCGCTCCC | CAGCAAGGTG | ATTAGTCCCA | 360 |
| | GAGCTCGGCT | GCCACCTCCA | CCGGACACCT | CAGACAGGCT | TCGCGAGCTG | TGCTCGGCT | 420 |
| 25 | CACACACAG | ATTGACTGCT | CTGACTTTGA | CTACTCAAAA | TTGGCCTAAA | AATTAAGA | 480 |
| | GATCGATATT | AAAAAATAAA | AAAAAATAAA | AAAAAATAAA | AAAAAATAAA | AAAAAATAAA | 540 |

Seq ID NO: C11 DNA Sequence

Nucleic Acid Accession #: NM_015419.1

Coding sequence: 1..8487

| | | | | | | | |
|----|------------|-------------|------------|------------|-------------|-------------|------|
| 30 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | ATGCCCAAGC | GGGCGCACTG | GGGGGCCCTC | TCCGTGGTGC | TGATCCTGCT | TGGGGGCCAT | 60 |
| | CCGCGAGTGG | CCCTGGCCTG | CCCCCATCCT | TGTGCTGCTC | ACGTCCCGAG | CGAGGTCCAC | 120 |
| 35 | TGCACGTTC | GATCCCTGGC | TTCCTGCCCC | GCTGGCATTG | CTAGACACGT | GGAAAGAATC | 180 |
| | AATTGGGGT | TTAATAGCAT | ACAGGCCCTG | TCAGAAACCT | CAITTTGCAAG | ACTGACCAAG | 240 |
| | TTGGAGCTAC | TTATGATTCA | DGGCAATGAG | ATCCCAAGCA | TCCCGATGG | AGCTTTAAGA | 300 |
| | GACCTCAGCT | CTCTTCAGGT | TTTCAAGTTC | AGCTACAACA | AGCTGAGAGT | GATCACAGGA | 360 |
| 40 | CAGACCTCCT | AGGGTCTCTC | TAACCTAATG | AGGCTGCACA | TTGACCACAA | CAAGATCGAG | 420 |
| | TTTATCCACC | CTCAAGCTTT | CAACGGCTTA | ACGTCTCTGA | GGCTACTCCA | TTTGGAAAGGA | 480 |
| | AATCTCCTCC | ACCAGCTGCA | CCCCAGCAC | TTCTCCAAGT | TCACATTTT | GGATTATTTT | 540 |
| | AGACTCTCCA | CCATAGGCA | CCTCTACTTA | GCAGAGAAAC | TGGTTABAA | TCTTCTGCTC | 600 |
| | AGCATGCTTC | GCAACATGCC | GCTTCTGGAG | AATCTTFACT | TGCAGGGAAA | TCCGTGGACC | 660 |
| 45 | TGCGATTGTG | AGATGAGATG | GTTTITGGAA | TGGGATGCAA | AATCCAGAGG | AATCTGAAG | 720 |
| | TGTAAAGAG | ACAAAGCTTA | TGAAGGCCGT | CAGTTGTGTG | CAATGTGCTT | CAGTCCAAAG | 780 |
| | AAGTTGTACA | AACATGAGAT | ACACAAGCTG | AAGGACATGA | CTTGTCTGAA | GCCTTCAATA | 840 |
| | GAGTCCCTCC | TGAGACAGAA | CAGGAGCAGG | AGTATTGAGG | AGGAGCAAGA | ACAGGAAGAG | 900 |
| | GATGGTGGCA | GCTCAGCTCAT | CCTGGAGAAA | TTCCAACTGC | CCGAGTGGAG | CATCTCTTTG | 960 |
| 50 | AATATGACCG | AGGAGCAAGG | GAACATGGTG | AATCTGGTCT | GTGACATCAA | GAACCAATG | 1020 |
| | GATGTGTACA | AGATTCACTT | GAACCAAGC | GATCCCTCCG | ATATTGACAT | AAATGCAACA | 1080 |
| | GTTGCCTTGG | ACTTTGAGTG | TCCATGAGCC | CGAGAAACT | ATGAAAAGCT | ATGGAATTTG | 1140 |
| | ATAGCATACT | ACAGTGAAGT | TCCCGTGAAG | CTACACAGAG | AGCTCATGCT | CAGCAAGAGC | 1200 |
| | CCAGAGGCTA | GCTACAGTA | CAGGCAGGAT | GCTGATGAGG | AAGCTCTTTA | CTACACAGGT | 1260 |
| 55 | GTGAGAGCCC | AGATTCTTGC | AGAACCAGAA | TGGGTATGTC | AGCCATCCAT | AGATATCCAG | 1320 |
| | CTGAACCGAC | CTCAGAGTAC | GGCCAGAGAG | GTGCTACTTT | CCTACTACAC | CCAGTATTCT | 1380 |
| | CRAACATAT | CCACCAAGAA | TACAAAGCAG | GCTGGGGGCA | GAAGCTGGGT | AATGATTGAG | 1440 |
| | CCTAGTGGAG | CTGTGCAAG | AGATCAGACT | GCTCTGGAAG | GGGGTCCATG | CCAGTTGAGC | 1500 |
| | TGCAACGTGA | AGCTTCTGA | GAGTCCATCT | ATCTTCTGGG | TGCTTCCAGA | TGGCTCCATC | 1560 |
| 60 | CTGAAGCGC | CCATGGATGA | CCCAGACAGC | AAGTCTCCCA | TTCTCAGCAG | TGGCTGGCTG | 1620 |
| | AGGATCAAGT | CAATGGAGCC | ATCTGACTCA | GGCTTGATAC | AGTGCATTGC | TCAGTGAGG | 1680 |
| | GATGAAATGG | ACCGCATGGT | ATATAGGGTA | CTTGTGCAGT | CTCCTCCAC | TCAGCCAGCC | 1740 |
| | GAGAAAGACA | CAGTGACAT | TGGCAAGAAC | CCAGGGGAGT | CGGTGACATT | GCCTTGCAAT | 1800 |
| | GCCTTAGCAA | TACCCGAAGC | CCACCTTAGC | TGGATTCTTC | CAACACAGAG | GATAATTAAT | 1860 |
| 65 | GATTTGCTA | ACACATCACA | TGTATACATG | TTGCCAAATG | GAACCTCTTC | CATCCCAAG | 1920 |
| | GTCCAGTCA | GTGATAGTGG | TTACTACAGA | TGTGTGCTG | TCAACAGCA | AGGGGCGAGC | 1980 |
| | CATTTTACGG | TGGGAATCAC | AGTGACCAAG | AAAGGGTCTG | GCTTGCCATC | CAAAAGAGGC | 2040 |
| | AGAGCCCCAG | GTGCAAGGC | TCTTTCCAGA | GTGAGAGAG | ACATCGTGG | GGATGAAGGG | 2100 |
| | GGCTCGGGCA | TGGGAGATGA | AGAGAACACT | TCRAGGAGAC | TTCTGCATCC | AAGGAACCAA | 2160 |
| 70 | GAGGTGTCC | TCAAAACAAA | GGATGATGCC | ATCANTGGAG | ACRAGAAAGC | CAAGAAAGGG | 2220 |
| | AGAGAAAGC | TGAACCTCTG | GAAGCATTCG | GAAGAAAGAC | CAGAGACCAA | TGTTGCAGAA | 2280 |
| | GGTGCAGAG | TGTTTGAATC | TAGACGAAGG | ATAAACATGG | CAAAACAAACA | GATTAAATCG | 2340 |
| | GAGCGCTGGG | CTGATATTTT | AGCCAAAGTC | CGTGGGAAAA | ATCTCCCTAA | GGGCACAGAA | 2400 |
| | GTACCCCGGT | TGATTAAGAC | CCATCTCTGA | GGCTAGAGGT | CACACCACTT | | 2460 |
| 75 | TTCTCTGCTG | TTTCTCCCTC | CTCAGCATCT | CCTGTGAGCA | CAGTAACAG | TGCTGAAGAA | 2520 |
| | TCTCAGCAG | ATGTACTCTT | ACTTGGTGAA | GAGGAGCAGG | TTTTGGGTAC | CATTTCTCTA | 2580 |
| | GCCAGCATGG | GGCTAGAAC | CAACCAAT | GGAGTTATTC | TGTTGAACC | TGAAGTAACA | 2640 |
| | AGCTACCTTC | TGAGGAGAGT | TGTTGATGAC | CTTCTGAGA | AGACTGAGGA | GATAACTTCC | 2700 |
| | ACTGAAGAG | ACCTGAAGG | GACAGCAGCC | CCTACACTTA | TATCTGAGCC | TTATGAACCA | 2760 |
| 80 | TCTCTACTTC | TGCACACATT | AGACACAGTC | TATGAAAGC | CCACCATGGA | AGAGAGGSCA | 2820 |
| | ACAGAGGGTT | GGTCTGCAGC | AGATGTTGGA | TGCTCACCAG | AGCCCACTTC | CAGTGAGTAT | 2880 |
| | GAGCCTCCAT | TGGATGCTGT | CTCCTTGGCT | GAGTCTGAGC | CCATGCAATA | CTTTGACCCA | 2940 |
| | GATTTGGAGA | CTAAGTCACA | ACCAGATGAG | GATAAGATGA | AAGAAGACAC | CTTTGCACAC | 3000 |
| | CTTACTCCAA | CCCCCACCAT | CTGGGTAAAT | GACTCCAGTA | CATCAGATT | ATTTGAGGAT | 3060 |

| | | | | | | | |
|----|-------------|-------------|------------|-------------|-------------|------------|------|
| 5 | TCTACTATAG | GGGAACCCAGG | TGTCCCAGGC | CAATCACATC | TACAAGGACT | GACAGACAA | 3120 |
| | ATCCACCTTG | TGAAAGTAG | TCTAAGCACT | CAAGACACCT | TACTGATTAA | AAAGGGTATG | 3180 |
| | AAAGAGATGT | CTCAGACACT | ACAGGGAGGA | AAATATGCTAG | AGGGAGACCC | CACACACTCC | 3240 |
| | AGAAGTTCGT | AGAGTGAGGG | CCAGAGAGGC | AAATCCATCA | CTTTGCCCTGA | CTCCACACTG | 3300 |
| | GGTATAATGA | GCAGTATGTC | TCCAGTTAAG | AAGCCTGCGG | AAACCCACAGT | TGGTACCCTC | 3360 |
| | CTAGACAAG | ACACCNCLAC | AGTAACAACA | ACACCAAGGC | AAAAAGTTGC | TCCGTATCC | 3420 |
| | ACCATGAGCA | CTCACCTTTC | TGGAAGGAGA | CCCAACGGGA | GAAGGAGATT | ACGCCCAAC | 3480 |
| | AAATTCCGCC | ACCGGCACAA | GCAAAACCCA | CCCAACACTT | TGCCCCATC | AGAGACTTTT | 3540 |
| 10 | TCTACTCAAC | CAACTCAAGC | ACCTGACATT | AAGATTTCRA | GTCAAGTGA | GAGTTCTCTG | 3600 |
| | GTTCCTACAG | CTTGGGTGGA | TAACACAGTT | AATACCCCA | AACAGTTGGA | AATGGAGAAG | 3660 |
| | AATGCAGAAG | CCACATCCAA | GGGAACCCA | CGGAGAAAC | ACGGGAAGAG | GCCAAACAAA | 3720 |
| | CATCGATATA | CCCCCTCTAC | AGTGAGCTCA | AGAGCGTCCG | GATCCAAGCC | CAGCCCTTCT | 3780 |
| | ACAGAAAATA | AACATAGAAA | CATTGTACT | CCCACTCAG | AAACTATACT | TTTGCTTAGA | 3840 |
| 15 | ACTGTTCTC | TGAAAACCTG | GGGOCCTTAT | GATTCTTAG | ATTACATGAC | AACCACAGA | 3900 |
| | AAAAATATAT | CATCTTACCC | TAAAGTCCAA | GAGACACTTC | CAGTCACATA | TAAACCCACA | 3960 |
| | TCAGATGGAA | AAGAAATTA | GGATGATGTT | GCCACAAATG | TGCAAAACA | TAAAGTGAC | 4020 |
| | ATTTTAGTCA | CTGGTGAAATC | AATTACTAAT | GCCATACCAA | CTTCTCCTC | CTTGGTCTCC | 4080 |
| | ACTATGGGAG | AATTTAAGGA | AGAATCCTCT | CCTGTAGGCT | TTCAGGAAC | TCCAACCTGG | 4140 |
| 20 | AATCCCTCAA | GACACGCCCA | GCCTGGGAGG | CTACAGACAG | ACATACCTGT | TACCACTTCT | 4200 |
| | GGGAAAATAT | TTACAGACCC | TCCCTTCTT | AAAGAGCTTG | AGGATGTGGA | TTTCACITCC | 4260 |
| | GAGTTTTTGT | CCTCTTTGAC | AGTCTCCACA | CCATTTTACC | AGGAAGAAGC | TGGTTCTTCC | 4320 |
| | ACAACTCTCT | CAAGCATAAA | AGTGGAGGTG | GCTTCAAGTC | AGGCAGAAAC | CACCAACCTT | 4380 |
| | GATCAAGATC | ATCTTGAAAC | CACGTGGGCT | ATCTCTCTTT | CTGAAACTAG | ACCAAGAAAT | 4440 |
| 25 | CACACCCCTA | CTGACGCCCG | GATGAAGGAG | CCAGCATCTT | CGTCCCATC | CACAATTTCT | 4500 |
| | ATGTCTTTGG | GACAAACAC | CACCACTAAG | CCAGCACTTC | CCAGTCCAG | AATATCTCAA | 4560 |
| | GCATCTAGAG | ATTCACAGGA | AAATGTTTTT | TGAAATTATG | TGGGGAATCC | AGAAACAGAA | 4620 |
| | GCAACCCAG | TCAACATGA | AGGAACACAG | CATATGTGAG | GGCCAAATGA | ATTATCAACA | 4680 |
| | CCCTCTTCCG | ACCGGATGTC | ATTTAACTTG | TCTACAAAGC | TGGAATTGGA | AAAGCAAGTA | 4740 |
| 30 | TTTGGTAGTA | GGAGCTACAG | ACGTGGCCCA | GATAGCCAA | GCCAGGATGG | AAGAGTTTAT | 4800 |
| | GCCTCTCATC | AACCTACACG | AGTCCCTGCC | AAACCCATCC | TACCAACAGC | AACAGTGAGG | 4860 |
| | CTACTGAAA | TGTCACACA | AAGCGCTTCC | AGATACTTTG | TACTTCCCA | GTCACTCTGT | 4920 |
| | CACCTGGACCA | ACAAACCGGA | AATAACTACA | TATCCTTCTG | GGGCTTTGCC | AGAGAACAAA | 4980 |
| | CAGTTTACAA | CTCCAGATAT | ATCAAGTACA | ACAATTCCTC | TCCCATTECA | CATGTCCAAA | 5040 |
| 35 | CCAGACATTC | CTAGTAAAGT | TACTGACCGA | AGAACTGACC | AATTCATAGG | TACTTCCAAA | 5100 |
| | GTGTTTGGAA | ATAACAACTAT | CCCTGAGGCA | AGAAACCCAG | TTGGAAGGCC | TCCAGTCCCA | 5160 |
| | AGAATTCTCT | ATTATTCCAA | TGGAAGACTC | CCTTTCTTTA | CCAACAAGAC | TCTTTCTTTT | 5220 |
| | CCACAGTTGG | GAGTCAACCG | GAGACCCAG | ATACCCACTT | CTCCTGCCCC | AGTAATGAGA | 5280 |
| | GAGAGAAAG | TTATTCCAGG | TTCTTACAA | AGGATACATT | CCCATAGCAC | CTTCCATCTG | 5340 |
| 40 | GACTTTGGCC | CTCGGCACCC | TCOGTTGTTG | CACACTCCGC | AGACCAACGG | ATCACCTTCA | 5400 |
| | ACTAACTTAC | AGAATATCCC | TATGTTCTCT | TCCACCCAGA | GTTCATCTCT | CTTTATAACA | 5460 |
| | TCTCTCTTCC | AGTCTCTCAG | AAGCTTCCAC | CAGAGCTACT | CAAAGTCTCT | TGCAGGAGCA | 5520 |
| | CCTCTGTCAT | CCAAATCTTG | GTCTCTTGGG | GAAGAGCCCC | AAATCTCTAC | CAAGTCCCCA | 5580 |
| | CAGACTGTGT | CCGTACCCGC | TGAGACAGAC | ACTGTGTTC | CTGTGAGGCG | AACAGGAAAA | 5640 |
| 45 | CCAAAGCCCT | TGCTTACTTG | GACAAAGGTT | TCCACAGGAG | CTCTTATGAC | TCCGAATACC | 5700 |
| | AGGATACAA | GGTTTGAGGT | TCTCAAGAAC | GGTACCTTAG | TGATACGGA | GGTTCAAGTA | 5760 |
| | CAAGATGAG | GCCAGTATAT | GTGCACCCGC | AGCAACCTGC | ACGGCTCGGA | CAGGATGCTG | 5820 |
| | GTCTTGCTTT | CGGTACCCGT | GCAGCAACCT | CAAACTCTAG | CCTCCCACTA | CCAGGACGTC | 5880 |
| | ACTGTCTTACC | TGGGAGACAC | CATTGCAATG | GAGTGTCTGG | CCAAAGGGAC | CCAGCCCTCC | 5940 |
| 50 | CAAAATTTCT | GGATTTCTCC | TGACAGGAGG | GTGTGGCAAA | CTGTGCTCCC | CGTGAGAGAC | 6000 |
| | CGCATCACCC | TGACAGAAAA | CCGGACCCCT | TCCATCAAGG | AGGCGTCTCT | CTCAGACAGA | 6060 |
| | GGCGTCTATA | AGTGCCTGGC | CAGCAATGCA | CCCGGGGCGG | ACAGCCCTGC | CATCCGCTCG | 6120 |
| | CACTGTGGCG | CAGTGCCTCC | CGTTATCTAC | CAGGAGAAAG | TGGAGAACAT | CTCGCTGCCC | 6180 |
| | CCGGGGCTCA | GCATTTACAT | TCACTGCAC | CCCAAGGCTG | CGCCCTGCCC | CAGCGTGGCG | 6240 |
| 55 | TGGGTGCTCG | GGGATCTGAC | CCAGATCCGC | CCCTCGCAGT | TCTTCCACGG | GAACTTGTCT | 6300 |
| | GTTTTCCCCA | ACGGGACGCT | CTACATCCGC | AACCTCGCGC | CCAAGGACAG | CGGGGCTAT | 6360 |
| | GAGTGCCTGG | CCGCTAACTT | GGTAGGCTCC | CGCGCCAGGA | CGGTGCAGCT | GAACTGTCAG | 6420 |
| | CGTGACGAG | CCACGCGCG | CATCAGCGGC | ACCTCCCGCG | GGGGAACGGA | CGTCAGGTAC | 6480 |
| | GGAGGAACCC | TCAAGCTGGA | CTGCAGCGCC | TGGGGGAGCC | CTGCGCCCG | CATCTCTTGG | 6540 |
| 60 | AGGCTGCCGT | CCAGAGGAT | GATCGACGCG | CTCTTCAATT | TTGATAGCAG | AATCAAGGTG | 6600 |
| | TTTGCCAATG | GGACCTTGGT | GGTGAATCA | GTGACGAGCA | AAGATGCGCG | AGATTACCTG | 6660 |
| | TGCGTAGCTC | GAATTAAGGT | TGTTGATGAC | TACGTGCTGC | TCAAGTGGGA | TGTTGTTATG | 6720 |
| | AAACCGGCCA | AGATTGAACA | CAAGGAGGAG | AACGACCA | AAGTCTCTTA | CGGGGTGAC | 6780 |
| | CTGAAGGTGG | ACTGTGTGCG | CACCGGGCTT | CCCAATCCCG | AGATCTCTCG | GAGCTTCCCA | 6840 |
| 65 | GACGGGAGTC | TGGTGAATCT | CTTCATGCA | TCCGATGACA | GCGGTGGAGC | CACCAAGGCG | 6900 |
| | TATGTCTCTT | TCAATATGAG | GACACTCTAC | TTTAAAGGAG | TGGGATGAG | GGAGGAAGGA | 6960 |
| | GACTACACTT | GCTTTGCTGA | AAATCAGGTC | GGGAAGGACG | AGATGAGAGT | CAGAGTCAAG | 7020 |
| | GTGGTGACAG | CGCCCGCCAC | CATCCGGAAC | AAGACTTACT | TGGCGGTTCA | GGTGCCCTAT | 7080 |
| | GGAGACGTGG | TCACTGTAGC | CTGTGAGGCG | AAAGGAGAAC | CCATGCCCAA | GGTGACTTGG | 7140 |
| 70 | TTGTCCCAAA | CCAAACAGGT | GATCCCCACC | TCTCTGAGA | AGTATCAGAT | ATACCAAGAT | 7200 |
| | GGCACTCTCC | TTATTAGAA | AGCCAGCGT | TCTGACAGCG | GCAACTACAC | CTGCCCTGGT | 7260 |
| | AGGAACAGCG | CGGGAGAGGA | TAGGAAGAGG | GTGTGGAATC | AGTCAACCT | CCAGCCACCC | 7320 |
| | AAGATCAAG | GTAAACCCAA | CCCCATCACC | ACCGTGCGGG | AGATAGCAGC | CGGGGCGAGT | 7380 |
| | CGGAATCTGA | TGACTGCAA | AGCTGAGGCG | ATCCCCACCC | CGAGGGTGT | ATGGCTTTT | 7440 |
| 75 | CCGAGGGTGG | TGGTCTGCTC | AGCTCCATAC | TATGGAACCC | GGATCACTGT | CCATGGCAAC | 7500 |
| | GGTTCCCTGG | ACATCAGGAG | TTTGAAGGAG | AGCGACTCCG | TCCAGCTGGT | ATGCTATGGA | 7560 |
| | CGCAAGAGGG | GAGGGGAGG | GAGGTTGATC | GTGCAAGTCA | CTGTCTGGA | GCCCATGGAG | 7620 |
| | AAACCCATCT | TCCACGACCC | GATCAGCAG | AAGATCAAG | CCATGGCGGG | CCACACCATC | 7680 |
| | AGCCTCAACT | GCTCTGCGCG | GGGGACCCCG | ACACCCAGCC | TGGTGTGGGT | CCTTCCCAAT | 7740 |
| 80 | GGCACGATTC | TGCAGAGTGG | ACAGCAGCTG | CAGCGCTTCT | ACCACAGGCG | TGACCGCATG | 7800 |
| | CTACACATTA | CGCGTCTCTC | CTCGGTGAGC | GCTGGGGCCT | ACCGCTGCGT | GGCCCGCAAT | 7860 |
| | GCGCTTGGCC | ACAGCGAGAG | GCTGGTCTCC | CTGAAGGTGG | GACTGAAGCG | AGAAGCAAC | 7920 |
| | AAGCAGTATC | ATAACCTGGT | CAGCATCATG | AATGGTGAGA | CCCTGAAGCT | CCCTGACACC | 7980 |
| | CCTCCCGGGG | CTGGGCGAGG | ACGTTTCTCC | TGGAGCTGCC | CCATGGGAT | GCATCTGGAG | 8040 |
| | GGCCGCCAAA | CCCTGGGACG | CGTTTCTCTT | CTGGACAATG | GCACCTCAC | GGTTCTGTAG | 8100 |

| | | | | | | | |
|----|-------------|------------|-------------|-------------|-------------|-------------|------|
| | GCCTCGGTGT | TTGACAGGGG | TACCTATGTA | TGCAGGATGG | AGACGGAGTA | CGGCCCTTCG | 8160 |
| | GTCAACAGCA | TCCCGTGTAT | TGTGATCGCC | TATCCTCCCC | GGATCACCAG | CGAGCCCAAC | 8220 |
| | CCGGTCACTT | ACACCCGGCC | CGGGAACACC | GTGAACTGA | ACTGCATGGC | TATGGGGATT | 8280 |
| 5 | CCCAAAGCTG | ACATCACTTG | GGAGTTACCG | GATAAGTCGC | ATCTGAAGGC | AGGGGTTCAg | 8340 |
| | GCTCGTCTGT | ATGGAACAG | ATTTCCTCAC | CCCCAGGGAT | CACCTGACCAT | CCAGCATGCC | 8400 |
| | ACACAGAGAG | ATGCCGGCTT | CTACAAGTGC | ATGCCAAAA | ACATTCTCGG | CAGTGACTCC | 8460 |
| | AAAACAACTT | ACATCCACGT | CTTCGAAAT | GTGGATTCCA | GAATGATTGC | TTAGGAACCTG | 8520 |
| | ACAACAAAGC | GGGTTTGTA | AGGGAAGCCA | GGTTGGGGAA | TAGGAGCTCT | TAAATAATGT | 8580 |
| 10 | GTCAAGTGC | ATGGTGGCCT | CTGGTGGGTT | TCAAGTTGAG | GTGATCTTG | ATCTACAATT | 8640 |
| | GTTGGGAAA | GGAAGCAATG | CAGACACGAG | AAGGAGGGCT | CAGCCTTGCT | GAGACACTTT | 8700 |
| | CTTTGTGTTT | TACATCATGC | CAGGGGCTTC | ATTCAAGGGT | TCTGTGCTCT | GACTGCAATT | 8760 |
| | TTTCTTCCTT | AGCAATGCT | ACTCGACTGC | CTTCATAAGC | GTCCATAGGA | TATCTGAGGA | 8820 |
| | ACATTTCATCA | AAAATAAGCC | ATAGACATGA | ACAACACCTC | ACTACCCCAT | TGAAGACGCA | 8880 |
| 15 | TCACCTAGTT | AACCTGCTGC | AGTITTTTACA | TGATAGACTT | TGTTCCAGAT | TGACAAGTCA | 8940 |
| | TCITTCAGTT | ATTTCCTCTG | TCACCTCAAA | ACTCCAGCTT | GCCCAATAAG | GATTTAGAAC | 9000 |
| | CAGAGTGACT | GATATATATA | TATATATTTT | AAATCAGAGT | TACATACATA | CAGCTACCAT | 9060 |
| | TTTATATGAA | AAAAGAAAAA | CATTTCTTCC | TGGAACCTCAC | TTTTTATATA | ATGTTTTATA | 9120 |
| | TATATATTTT | TTCCCTTCAA | ATCAGACGAT | GAGACTAGAA | GGAGAATATC | TTTCNGTCTT | 9180 |
| 20 | ATTAAAAATTA | ATAAATTATT | GCTCTTTACA | AGACTTGGAT | ACATTACAGC | AGACATGGAA | 9240 |
| | ATATAATTTT | AAAAAATTTT | TCTCCAACTC | CTTFCAAATT | CAGTCACCAAC | TGTTATATTA | 9300 |
| | CCCTCTCCAG | GAACCTTCCA | GTGGGGAAGG | CTGCGATATT | AGATTTCCTT | GTATGCAAAG | 9360 |
| | TTTTGTGTGA | AAGCTGTGCT | CAGAGGAGGT | GAGAGGAGAG | GAAGGAGAAA | AGTCATCAT | 9420 |
| | AACITTCACG | AATTGAATCT | AGAGTCTTCC | CGGAAAAGCC | CAGAACTTTC | TCTGCAGTAT | 9480 |
| 25 | CTGGCTGTGC | CACTGCTCT | AAGGTGGCTG | CTTCTTCCCC | AGCCATGAGT | CAGTTTGTGC | 9540 |
| | CCATGAATAA | TACACGACCT | GTTATTTCCA | TGACTGCTTT | ACTGTATTTT | TAAAGTCAAT | 9600 |
| | ATACTGTACA | TTTGATAATA | AAATAATATT | CTCCCAAAA | AAAAA | | 9645 |

Seq ID NO: C12 DNA Sequence
Nucleic Acid Accession #: AK001903
Coding sequence: none

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| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 35 | TATCATGCAT | GTGGGAAGGT | GGGTGTGGTG | AGAAAAGTTT | TAAGGCAAGA | GTAGATGGCC | 60 |
| | ATGTTTCAACT | TTACAAAAAT | TCTTGAAAAA | CTGGCAGTAT | TTTGAAGTGC | ATCTTCTTTG | 120 |
| | GTACCGGAAC | CTGCAGAAAC | AGTGTGAGAA | ATTAAAGTCT | GGTTCACTGC | GCAGTAGCAA | 180 |
| | AGATGGTCAA | GGCCATGGAA | AAAGCAGAAA | TTTACCAAGA | AAGCTGATAC | CCATGTATAG | 240 |
| 40 | TTCCCACTCA | TCFCAATATC | ATCTGCTATC | TTTTTAAAGT | AAGTCCTAGA | CAATTCGGGG | 300 |
| | ATAACATGGG | GGTGTATTAG | TGACCACAGT | TATCAGAAGC | AGAGAAATGT | AATTCCATAT | 360 |
| | TTTATTGAAA | ACTTATTCCA | TATTTTATTT | GGATATTGAG | TGATTGGGTT | ATCAAAACACC | 420 |
| | CACAAACTTT | AATTTTGTGA | AATTTATATG | GCTTTGAAAT | AGAAGTATAA | GTTCCTACCA | 480 |
| | TTTTTTGATA | ACATTGAAAG | ATAGTATTTT | ACCATCTTTA | ATCATCTTGG | AAAAACAAAG | 540 |
| 45 | TCTGTGGAAC | AACCACTCTT | TCACCTAGCA | GCATGAGGCC | AAAGTAAAG | GCTTTAAATT | 600 |
| | ATAACATATG | GGATCTTTAG | TAGTATGTTT | TTTTCTTGAA | ACTCAGTGGC | TCTATCTAAC | 660 |
| | CTTACTATCT | CCCTACTCTT | TCTCTAAGAC | TAAACTCTAG | GCTCTTAAAA | ATCTGCCCCAC | 720 |
| | ACCAATCTTA | GAAGCTTTCT | AAAGAAATTG | TCCTTAAATA | TCCTTTAATA | GTAAACATGA | 780 |
| | TTTTATGGAC | CAAATTGACA | TTTTOGACTA | TTTTTTCCMA | AAAAGTCAGG | TGAATTTCAg | 840 |
| 50 | CACACTGAGT | TGGGAATTTC | TTATCCCAAG | AGACCAACCA | ATTTCAATAT | TATTTAAGAT | 900 |
| | TGATTCCATA | CTCCGTTTTC | AAGGAGAATC | CCTGCAGTCT | CCTTAAAGGT | AGAACAAATA | 960 |
| | CTTTCTATTT | TTTTTTTCAC | CATTGTGGGA | TTGGAATTTA | AGAGGTGACT | CTAAAAAAAC | 1020 |
| | AGAGAACAAT | TATTTCTCAG | TTGTATTAAg | CACGGACCCA | TATTTATCAT | TTCACTTAAA | 1080 |
| | AAAATGATTT | CTGTGTCAAC | TTTTGGCAAC | TTCTCTTTTC | AATGTAGGGA | AAAACCTAGT | 1140 |
| 55 | CACCCAGAAA | ACCCCAAAAA | TAAATAAAAC | TTGTAGATGT | GGGCAGAAAG | TTTGGGGGTG | 1200 |
| | GACATTGTAT | GTGTTTAAAT | TAAACCTGT | ATCACTGAGA | AGCTGTGTGA | TGGGTGAGAG | 1260 |
| | AAAATGAATG | CTTAGAAGCT | GTTTCATCTT | TCAAGAGCAG | AAGCAAAACA | CATGTCTCAG | 1320 |
| | CTATATTATT | ATTATTTTAT | TATGCAATAA | GIGAATCAIT | TCITCTGTAT | TAAITTCCAA | 1380 |
| | AGGGTTTTC | CCCTATTFTA | AATGCTTTGA | AAAACAGTGC | ATTGACATG | GGTTGATATT | 1440 |
| 60 | TTTTCTTAAA | AGAAAAATAT | AATTATGAAA | GCCAAAGATA | TCGAAAGCCT | GTTTTATTTT | 1500 |
| | AAAACITTTT | ATGTTCTGTG | GTTGAATGTG | TTTGTTTGTT | TGTTTCTATT | TGTTTGGTTT | 1560 |
| | TTTACTTGT | TTTTTGTTTT | GTTTTGTTTT | GTTTTGCATA | CTACATGCAG | TTCTTTAACC | 1620 |
| | AATGTCTGTT | TGGCTAATGT | AATTAAAGTT | GTTAATTAT | ATGAGTGCAT | TTCAACTATG | 1680 |
| | TCAATGGTTT | CTTAATATTT | ATTGTGTAGA | AGTACTGGTA | ATTTTTTTAT | TTACAATATG | 1740 |
| 65 | TTTAAAGAGA | TACAGTTTGG | ATATGTTTTC | ATGRTTTTAT | AGCAGAAATT | ATTTATTTCT | 1800 |
| | ATGGCATTCC | AGCGAATATT | TTGGTGTTTG | CGAGGCATGC | AGTCAATATT | TGTACAGTT | 1860 |
| | ATGGGACAGT | ATTACAGCAAC | GCCTGATAGC | TTCTTTGGCC | TTATGTTAAA | TAAAAAGACC | 1920 |
| | TGTTTGGGAT | GT | | | | | 1932 |

Seq ID NO: C13 Protein Sequence
Nucleic Acid Accession #: B08 sequence
Coding sequence: 1..5001

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|----|------------|------------|------------|-------------|-------------|------------|-----|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 75 | ATGCCAGGCA | CAAAACTAAC | CGGAACAGGC | GCCCCAGCAG | ACTACAGAGT | GATATTGAAG | 60 |
| | ACCTCTCAAG | AGBAACGAAT | GGATGTACTT | GAACACATCA | GCCTCCGGGT | TATGTCACTT | 120 |
| | CAGTCTGTGC | TTGTGCTCTG | GGTGGATCCT | GTTCTGGAAG | AACAGAAAGAA | AGTGTGTGCA | 180 |
| 80 | TCAAGACATT | ACACCGTGGC | CTATCGAGAG | AAGGGGAAT | TGGCCAGGTC | GGATTATAGG | 240 |
| | CAGATCGCTA | ACAGGCGTGT | GCTGATTTAG | AACCTGATTC | CAGACACTGT | GTATGAATTT | 300 |
| | GCAGTCCGTA | TTTCACAGGG | TGAAAGAGAT | GGCAAAATGGA | GTACGTTCAGT | CTTCCAAACA | 360 |
| | ACACCAAGAT | CTGCCCTTAC | CACAGCTCCT | GAAAACCTGA | ACGTCTGGCC | AGTCAATGGC | 420 |
| | AAACCTACAG | TTGTGCTCTG | ATCTTGGGAT | CGGCTACCAg | AGACTGAGGG | GAAAGTGAAA | 480 |
| | GTCGTCTGTC | TGACACAGG | ACTGTTTTCA | GTTTCTCTCT | TCCAACCAT | TGCCAATCA | 540 |

| | | | | | | | |
|----|-------------|-------------|-------------|-------------|------------|-------------|------|
| | TTTCAGAATA | CATTCTTTCA | TACGCCCCGG | CTCTCAAAAC | ATTGGAGCA | AAGTCCCTCA | 600 |
| | CCATCTCTGG | AGACACTACT | TCGTCCCTGG | TGGATGGTCT | GCAGCCTGGG | GAACGCTATC | 660 |
| | TTTTCAAAAT | CCGGGGCACA | AACAGGAGAG | GCCTGGGACC | TCACTCCAAA | GCCTTCATTG | 720 |
| 5 | TCGCTATGCC | AACAAGAATG | CAGCTGTACC | CAGAAGGATT | TCAGTTGTCT | AGCTTACCTG | 780 |
| | ATCGATATCC | AAACCAACA | AGTTAATAAA | GATCCACAAC | TGGAGGGGAG | TGTTTTTGA | 840 |
| | CCATGTTTTC | TTTTCTACTT | CCTCACTTT | ATGCTGGATA | TTGGCGGCTT | TTCCTTCATT | 900 |
| | ATGTGCTATG | AAGACCCANM | TGTTTCTTCT | TTGACAGGCA | ATTCTTTAAA | ATCTGTTGCA | 960 |
| | GCCAGTAAGG | CGGATGTTC | GCAGAACACG | GAGGACAATG | GGAAACCCGA | AAAACTGAG | 1020 |
| 10 | CCTTCTCTAC | CTTCTCCAG | AGCTCCAGCT | TCCTCCCAAC | ACCCCTCTGT | GCCTGCTTCT | 1080 |
| | CCCCAAGGGA | GAAATGCCAA | GGACCTTCTT | CTTGACTTGA | AGAACAAAAT | ATTGGCTAAT | 1140 |
| | GGTGGGGCGC | CCCCAAAACC | CCAGCTTCGC | GCCAAGAAAG | CAGAGGAGCT | GGATCTTCAG | 1200 |
| | TCGACAGAAA | TCACITGGGA | GGAGGAGCTG | GGTTCCCGGG | AGGACTCGCC | CATGTCAACC | 1260 |
| | TCAGACACCC | AAGACAGAA | AOGGACCTTG | AGGCGGCGAA | GTAGACACGG | CCACTCGGTG | 1320 |
| 15 | GTGTGCTCCG | GCAGGACTGC | AGTGAGGGCC | CGGATGCCAG | CGCTGCCCGG | AAGGGAAGGC | 1380 |
| | GTAGATAAGC | CTGGCTTTTC | CCTGGCCACG | CGGCCCGCC | CAGGGGCGCC | CCCTCGGCT | 1440 |
| | TCGGCCTCTC | CTGCCACCA | CGCTTCACCC | CAGGCGACCT | CTCATGCTCC | TTCCTGCTCT | 1500 |
| | GCCAGCTTGA | ATGACCAACG | CTTGGTGGAC | TCAGACGAAG | ATGAGCGCGC | TGTGGGCTCC | 1560 |
| | CTCCACCCCA | AGGGCGCTTT | CGCCACGCC | CGGCCAGCCC | TGTCCCGCAG | CGGCCAGTCC | 1620 |
| 20 | CGCTCCAGCG | TTCTCCCGA | CAGAAGCTCT | GTGCACCCCG | CGCAAAAGCC | AGCCTCGCCG | 1680 |
| | GCSCGGAGGA | CCCCCATTC | AGGGGCGCGA | GAGGAAGATT | CCAGTGCCTC | AGCCCCACCC | 1740 |
| | TCAAGACITT | CTCCACCCCA | TGGGGGATCA | TCTCGGCTGC | TGCCCCACCA | GCCACACCTG | 1800 |
| | AGCTCTCCAC | TTTCCAGGG | CGGGAAGGAT | GGTGAGGACG | CCCCAGCCAC | CAACTCCAAAT | 1860 |
| | GGGCCATCAC | GGTCCACCAT | GTCTCTCTCC | GTCTCTCTCT | ATCTCTCTCT | CAGGAAGCAG | 1920 |
| 25 | GTCTCTGAGG | AGGCGGAGGC | TCTGATGGT | GAAAGCCACG | GTGACGGCGA | TAGGGAAGAC | 1980 |
| | GGCGGAGGGC | AGGCGGAGGC | CACGCGCCAG | ACGCTGCGGG | CCCGGCTCTC | CTCTGACAC | 2040 |
| | TTCATTTTGC | TCAGACACAA | ACCCCTTGCT | GCCAAACGGG | GGTCTCCAAG | CAGGTTGAGC | 2100 |
| | ATTGGGCGGG | GAGCTCGGCT | GCAGCCCTCC | AGCTCCCCAC | AGTCGACTGT | GCCTCCCGCA | 2160 |
| | GCCCAACCCA | GGGTTCCTCT | TCACCTCTGAT | TCCCAACCTA | AGCTTAGCTC | AGGTATCCAT | 2220 |
| 30 | GGAGACGAGG | AGGATGAGAA | GCCTCTCTCT | GCCACGTTTG | TCAATGACCA | CGTGCTCTCC | 2280 |
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| | GCCAGCCTGC | ATCGGAAGGA | ACCCATCCCA | GAGAACCCCA | AATCCACAGG | GGCAGATACA | 2400 |
| | CATCTCTAGG | GCAGGTACTC | CTCCCTGGCC | TCCAAGGCTC | AGGATGTTCA | ACAGAGCACA | 2460 |
| | GACCGCGACA | CGGAGGCTCA | TTCTCCCAAA | GCACAGCCAG | GGTCCACAGA | CGGCCACGCG | 2520 |
| 35 | TCCTCTGACT | GTCTCTCCGC | AGCAOGGTCA | CAGCAGCATC | CCAGTGTCTC | CAGAAGGATG | 2580 |
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| | ACAGGCGCAG | GCGCAGGTGG | CGACCAAGG | TCCAGGCGCG | GACATGCGGC | CTCCCCCGCC | 3000 |
| | AGGCCAGGCC | GGCCCGCGCG | CCCCAGTCC | CGCGCCCGGG | TCCCTAGCAG | GGCAGCGCGC | 3060 |
| 45 | GGGAAGTCGG | AGCCTCTCTC | CAGGCGGCC | CTGTCTCCCA | AGTCCAGCA | GTCCGTCTCA | 3120 |
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| 50 | CCCTGGCGCG | CGCTACACAC | GGCGCGCCCV | CCTGGCCACT | TCTCCACCA | CCCGATGCTG | 3480 |
| | TCCTTGCGCC | AGAGGATGAT | GCATGCCAGA | TTCCGTAAAC | CTCTCTCCCG | ACAGCCTGCC | 3540 |
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| 60 | ACCACTACCA | CBACGCGCCG | GCCTAACACT | ACACCGAGGC | CCACCACTGC | CACCAACCGC | 4080 |
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| | ACCAACCCCA | AACCCACACC | TCCCATCCCC | ACCTGTCCCC | CTGGGACCTT | GGAGCGGCAC | 4200 |
| | GACGATGATG | GCAACCTGAT | AATGAGCTCC | AATGGGATCC | CAGAGTGCTA | CGCTGAAGAA | 4260 |
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| 65 | TATGATGAAG | ATTATGAATT | TGAGACGTCA | AGGCCACCAA | CCACCACTGA | GOCTTCGACC | 4380 |
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| | TTGGAGACAG | CTGGGGGAAG | GGTGAAGACC | ATTGCCAATT | TGTGATTTCA | CACCTTGATG | 5160 |
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Seq ID NO: C14 DNA Sequence
Nucleic Acid Accession #: NM_003014
Coding sequence: 238..1278

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Seq ID NO: C15 DNA Sequence
Nucleic Acid Accession #: NM_005940
Coding sequence: 23..1489

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25 Seq ID NO: C16 DNA Sequence
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 Coding sequence: 202..1563

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75 Seq ID NO: C17 DNA Sequence
 Nucleic Acid Accession #: NM_003220
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| | CTGATTTCCAT | CCTGTGTCCC | CTTCATCCTT | GACTCCTTTG | GTATTTCACT | GAATTTCAA | 3240 |
| | CATTGTTCAG | AGAAAGAAA | CGTAGGACT | CAGGAAAAAT | AAATAAATA | AAGAACAGCC | 3300 |
| 25 | TTTTCCCTTA | GTATTAAACAG | AAATGTTTCT | GTGTCTTAA | CCATCTTTAA | TCATGTCGAC | 3360 |
| | ATGTGCTCT | TGGCTGAAA | TTCTTCAACT | TGGAATGAC | ACAGACCCAC | AGAAGGTGTT | 3420 |
| | CAAAACACAC | CTACTCTGCA | AACTTGGTAA | AAGGAACAG | TCAGCTGGCC | AGATTTCTCT | 3480 |
| | ACTACCTGCC | ATGCATACAT | GCTGCGCATG | TTTCTTTCAT | TGATATGTTA | GTAAAGTTT | 3540 |
| 30 | GGTTATTATA | TATTTAACAT | GTGGAAGAAA | ACAAGACATG | AAAAGAGTGG | TGACAAATCA | 3600 |
| | AGAATAACAA | CTGGTTGTAG | TCAGTTTGTG | TTGTTAA | | | 3660 |
| | | | | | | | 3697 |

Seq ID NO: C20 DNA Sequence
Nucleic Acid Accession #: NM_004443
Coding sequence: 28..3024

| | | | | | | | |
|----|------------|------------|-------------|------------|-------------|-------------|------|
| 35 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | GGCTGGGCTC | CTAGAGCTGC | CACGGCCATG | GCCAGAGCCC | GCCCGCCGCC | GCCCGCCGTCG | 60 |
| 40 | CCGCGCGCGG | GGCTTCTGCC | GCTGCTCCTT | CGCTGCTGTC | TGCTGCCGCT | GCTGCTGCTG | 120 |
| | CCGCGCGGCT | GCGCGGCGCT | GGAAGAGACC | CTCTGAGACA | CAAAATGGGT | AACATCTGAG | 180 |
| | TGGCGTGGGA | CATCTCATCC | AGAAAGTGGG | TGGGAAGAGG | TGAGTGGGCTA | CGATGAGGCC | 240 |
| | ATGAATCCCA | TCCGCATATA | CCAGGTGTGT | AATGTGCGCG | AGTCAAGCCA | GAACAACCTGG | 300 |
| | CTTCGCAAGG | GGTTCATCTG | GCGCGCGGAT | GTGCAAGCGG | TCTACGTGGA | GCTCAAGTTC | 360 |
| 45 | ACTGTGCGTG | ACTGCAACAG | CATCCCAAC | ATCCCGGCT | CCTGCAAGGA | GACCTTCAAC | 420 |
| | CTCTTCTACT | ACGAGGCTGA | CAGGATGTG | GOCTCAGCCT | CCTCCCTCTT | CTGGATGAGG | 480 |
| | AACCCCTAGG | TGAAGTGGG | CACCATTTGA | CCGATGAGA | GCPTCTCGCG | GCTGGATGCC | 540 |
| | GGCCGTGTCA | ACACCAAGGT | GGCAGCTTT | GGCCACTTT | CCAAGGCTGG | CTTCTACCTG | 600 |
| | GCCTTCCAGG | ACCAAGGCGC | CTGCATGTGG | CTCATCTCCG | TGCGCGCCTT | CTACAGAGAG | 660 |
| 50 | TGTGCAATCA | CCACGCGAGG | CTTGCCTCTC | TTCCCGAGGA | CCCTCAGTGG | GGCGAGAGCC | 720 |
| | ACCTCGCTGG | TGATTTGCTC | TGGCACCTGC | ATCCCTAACG | CCGTGGAGGT | GTGGGTGCCA | 780 |
| | CTCAAGCTCT | ACTGCAAGCG | CGATGGGGAG | TGGATGGTGC | CTGTGGGTGC | CTGCACCTGT | 840 |
| | GCCACCGGCC | ATGAGCCAGC | TGCCAAGGAG | TCCAGTGGCC | GCCCTCTGCC | CCCTGGGAGC | 900 |
| | TACAAGGCGA | AGCAGGGAGA | GGGCGCTTGC | CTCCCATGTC | CCCCCAACAG | CCGTACCCAC | 960 |
| 55 | TCCCGAGCGG | ACTGCACTTG | CACTTGCAC | AAATACCTCT | ACCTGTGAGA | CTGGACTCTT | 1020 |
| | GCGGACAGTG | CGTGTACAC | CGTGCCTCT | CCACCCGAG | GTGTGATCTC | CAATGTGAAT | 1080 |
| | GAACCTCTAC | TGATCTCGA | GTGGAATGAG | CCCGGGAGCC | TGGGTGGCGG | GGATGACCTC | 1140 |
| | CTGTACATG | TCATCTGCAA | GAAGTGCCAT | GGGCTTGGAG | GGGCTCAGC | CTGCTCAGCC | 1200 |
| | TGTGATGACA | ACGTGGAGTT | TGTGCTCCGG | CAGCTGGGCC | TGACGGAGCT | CGGGGTCCAC | 1260 |
| 60 | ATCAGCATTC | TGCTGSCCCA | CACGCGCTAC | ACCTTTGAGG | TGCAGGCGGT | CAACGCTGTC | 1320 |
| | TGCGGCAAGA | GGCTCTTGCC | GGCTCGTTAT | GGGCGGTGA | ATATCACCAC | AAACCAAGCT | 1380 |
| | GCCCGTCTG | AAATGCCCTC | ACTACGCTTG | CACAGCAGCT | CAGGCAGCAG | CCTCACCTTA | 1440 |
| | TCCTGGGCAC | CCCCAGAGCG | GCCCAACGGA | GTATCCCTGG | ACTACGAGAT | GAAGTACTTT | 1500 |
| | GAGAAGAGCG | AGGGCATCGC | CTCCACAGTG | ACCAGCCAGA | TGAATCTCCG | GCAGCTGGAC | 1560 |
| 65 | GGGCTTCGGC | CTGAGGCGCG | CTATGTGGTC | CAGGTCGGTG | CCCGCAGAGT | AGCTGGCTAT | 1620 |
| | GGGCAATACA | GGCGCCCTGC | CGAGTTTGA | ACCACAAGTG | AGAGAGGCTC | TGGGGCCACG | 1680 |
| | CAGCTCCAGG | AGCAGCTTCC | CCTCATGCTG | GGCTCCGCTA | CAGCTGGGCT | TGCTTCTGTG | 1740 |
| | GTGGCTGTG | TGTCATGCG | TATGCTCTGC | CTCAGGAAGC | AGCGACACGG | CTCTGATTGG | 1800 |
| | GAGTACACGG | AGAAGCTGCA | CGAGTACATT | GCTCTCTGAA | TGAAGGTTTA | TATTGACCTT | 1860 |
| 70 | TTTACCTACG | AGGACCTTAA | TGAGGCTGTT | CGGGAGTTTG | CCAAGGAGAT | CGAGTGTGCC | 1920 |
| | TGCGTCAAGA | TGAGGAGGTT | GATCGAGCTT | GGGGAATTTG | GGGAAGTGTG | CGGTGTGCGA | 1980 |
| | CTGAAACAGC | CTGGCCGCGG | AGAGGTGTTT | GTGGCCATCA | AGACGCTGAA | GGTGGGCTAC | 2040 |
| | ACCGAGAGGC | AGCGCGCGGA | CTTCCCTAAGC | GAGGCTTCCA | TCATGGGTCA | GTTCATCTAC | 2100 |
| | CCCAATATAA | TCCGGCTGGA | GGGCGTGGTC | ACCAAAAGTC | GGCCAGTTAT | GATCCTCTAC | 2160 |
| 75 | GAGTTTATGG | AAACTGTGCG | CTGGAATCTC | TTCTCTCGGC | TCAACGATGG | CGAGTTCAAG | 2220 |
| | GTCTATCCAG | TGGTGGGCAT | GTGCGGGGCG | ATTGCTGCGG | GCATGAAGTA | CCTGTCCGAG | 2280 |
| | ATGAACATAT | TGCACCGGGA | CCTGGCTGCT | CGCAACATCC | TTGTCAACAG | CAACCTGGTC | 2340 |
| | TGCAAGTCTT | CAGACTTTGG | CCCTCTCCGC | TTCTTGGAGG | ATGACCTCTC | CGATCCTACC | 2400 |
| | TACACCAAGT | CCCTGGGGGG | GAGATCTCCC | ATCCGCTGGA | CTGCCCCAGA | GGCCATAGCC | 2460 |
| 80 | TATCGGAAGT | TCACCTCTGC | TAGTGATGTC | TGGAGCTACG | GAATGTGTCAT | GTGGGAGGTC | 2520 |
| | ATGAGCTATG | GAGAGCGAGC | CTACTGGGAC | ATGAGCAACC | AGGATGTGAT | CAATGCCGTG | 2580 |
| | GAGCAGGATT | ACCGGCTGCC | ACCAACCATG | GACTGTCCCA | CAGCACTGCA | CCAGCTCATG | 2640 |
| | CTGGACTGCT | GGGTGCGGGA | CCGGAACCTC | AGGCCCAAT | TCTCCAGAT | TGTCAATACC | 2700 |
| | CTGGACRAGC | TCATCCGCAA | TGCTGCCAGC | CTCAAGGTCA | TTGCCAGCGC | TCAGTCTGGC | 2760 |
| | ATGTCACAGC | CCCTCCTGGA | CCGACGGTCT | CCAGATTACA | CAACCTCTAC | GACAGTTGGT | 2820 |

5
10
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GATTGGCTGG ATGCCATCAA GATGGGGGCG TACAAGGAGA GCTTCGTCAG TCGGGGGTTT 2880
GCATCTTTTG ACCTGGTGGC CCAGATGACG GCAGAAGACC TGCTCCGTAT TGGGGTCACC 2940
CTGGCCGGCC ACCAGAGGAA GATCCTGAGC AGTATCCAGG ACATGCGGCT GCAGATGAAC 3000
CAGACCGTGC CTGTGCAGGT CTGACACCGG CTCCACGGG GACCTTGAGG ACCGTGCAGG 3060
GATGCCAAGC AGCCGGCTGG ACTTTCGGAC TCTTGGACTT TTGGATGCCT GGCCTTAGGC 3120
TGTGGCCGAG AAGCTGGAAG TTTGGGAAG GCCCAAGCTG GGACTTCTCC AGGCCTGTGT 3180
TCCCTCCCCA GGAAGTGGCG CCCAAACCTC TTCATATTGA AGATGGATTA GGAGAGGGGG 3240
TGATGACCCC TCCCCAAGCC CCTCAGGGCC CAGACCTTCC TGCTCTCCAG CAGGGGATCC 3300
CCACAACCTC ACACCTGTCT GTTCTTCAGT GCTGGAGGTC CTGGCAGGCT CAGGCTGGGG 3360
TAAGCCGGGG TTCCACAGGG CCCAGCCCTG GCAGGGGTCT GGCCTCCAG GTAGGCGGAG 3420
AGCAGTCCCT CCTTCAGGAA CTGGAGGAGG GGACTCCAGG AATGGGGAAA TGTGACACCA 3480
CCATCTCGAA GCCAGCTTGC ACCTCCAGTT TGACACAGGA TTTGTCTCGG GGGCTGAGGG 3540
CCCTGTCCCC ACCCCGCCCC TTGGTGTGTG CATAAAGGGG CAGGCAGGGG CAGGCTGAGG 3600
AGTGTCCCTT TCCCCCCCAG AGACTGACTC TCAGAGCCAG AGATGGGATG TGTGAGTGTG 3660
TGTGTGTGTG TGTGCGCGCG CCGCGCGCTG TGTGTGTGCA CGACTTGGCC TGCACAGAGA 3720
GCATGGGTGA GCGTGTAAAA GCTTGGCCCT GTGCCCTACA ATGGGGCCAG CTGGGCGGAC 3780
AGCAGAATAA AGGCAATAAG ATGAA 3805

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Seq ID NO: C21 DNA Sequence
Nucleic Acid Accession #: NM_001804
Coding sequence: 82..879

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1 11 21 31 41 51
AGGTGAGCGG TTGCTCTGTG TCGGGGCGGC CGGCAGCGGC GGCTCCAGGG CCCAGCATGC 60
GCGGGGAGCC CGCGGGCCAC CATGTATGTG GGTATGTGTC TGGACAAGGA TTGCCCCGTG 120
TACCCCGGCC CAGCCAGGCC AGCCAGGCTC GGCTCGGGCC CGGCAAACTA CGGCCCCCCG 180
GCCCCGCCCC CGCGCGCCCC GCAGTACCCC GACTTCTCCA GCTACTCTCA CGTGGAGCCG 240
GCCCGCGCGC CCCCAGCGGC CTGGGGGGCG CCCTTCCCTG CCCCCAAGGA CGACTGGGCC 300
GCGGCTTACG GCGCGGCCCC CGCGGCCCTT GCGGCCAGCC CAGCTTCGCT GGCATTGGGG 360
CCCCCTCCAG ACTTTAGCCC GGTGCGCGCG CCCCCGGGCG CCGGCCCGGG CCTCTGGCG 420
CAGCCCCCTG GGGGCCCGGG CACACCGTCC TGCGCCGGAG CGCAGAGGCC GACGCCCTAC 480
GAGTGGATGC GCGCGAGCGT GCGCGCGCGA GCGCGCGGTG GCAGCGGTAA GACTCGGACC 540
AAGGACAAAT ACCCGGTGGT CTACACCGAC CACCAACGCC TGGAGCTGGA GAAGGAGTTT 600
CATTACAGCC GTTACATCAC AATCGCGGGG AAATCAGAGC TGCTGTCCAA TCTGGGGCTC 660
ACTGAACGGC AGGTGAAGAT CTGGTTCCAA AACCAGCGCG CAAGAGAGCG CAAAGTGAAC 720
AAGAAAGAAC AGCAGCAGCA ACACCCCCCA CAGCGCGCGA TGCCCCACGA CATCACGGCC 780
ACCCAGCGCG GCGCATGCCG GGGGGGCGCT TGTCCAGCA ACACGAGCCT CCTGGCCACC 840
TCCTCTCCAA TGCCGTGAA AGAGGAGTTT CTGCCATAGC CCGATGCCCA GCCGTGTGCG 900
CGGGGGAAGT GGGGACTCGG GTGCTGGGAG TGTGCTCCTT GTGGGCCAG GAGGTCTGGT 960
CCGAGTCTCA GCGCTGACCT TCTGGGACAT GGTGGACAGT CACCTATCCA CCTCTGCA 1020
CCCTTGGCGC CATTTGTGTC AGTAAGCGTG TTGATAAAG AOCCTCCAGC TCCTGTGTT 1080
TAGACCTCTG GGGGATAAGG GAGTCCAGGG TGGATGATCT CAATCTCCCG TGGGCATCTC 1140
AAGCCCCAAA TGGTTGGGGG AGGGGCTTAG ACAAGGCTCC AGGCCCCACC TCCTCTCTCA 1200
TAGGTTGAGA GTTGCAGCTG GAGGCGCTTG TGGGGACCAC ACTGATCTTG GAGAAAAGG 1260
ATGGAGCTGA AAAAGATGGA ATGCTTGCAG AGCATGAOCT GAGGAGGGAG GAACGTGGTC 1320
AACTCACACC TGCTCTCTCT GCAGCCTCAC CTCTACCTGC CCCCATCATA AGGGCACTGA 1380
GCCCTTCCCA CAGCTGGATC TAAGCACAAA GCGCATAGCA CTGGGCTCTG ATGGCTGCTC 1440
CACTGGGTTA CAGAAACACA GCGCTCATGA TCATTCTCAG TGAGGGCTCT GGAATTGAGG 1500
GGAGGCCCTG GAGGAGAGA AGGGGGCAGA GTCTTCCCTA CCAGGTTTCT ACACCCCGCG 1560
CAGGCTGCCC ATCAGGCCCC AGGGAGCCCC CAGAGGACTT TATTCGGACC AAGCAGAGCT 1620
CAGAGCTGGA CAGGTGTTCT ATATAGAGTG GAATCTCTTG GATGCAGCTT CAAGAAATAA 1680
TTTTCTCTCT CTTTTTCAA 1699

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Seq ID NO: C22 DNA Sequence
Nucleic Acid Accession #: NM_021978
Coding sequence: 36..2603

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GCGGAGGGGG CCGAAGGAC TTGGGCGCGG GACTCAAGTA CAACTCCCGG CACGAGAAAG 120
TGAATGGCTT GGAGGAAGGC GTGGAGTTCC TGCCAGTCAA CAAAGTCAAG AAGGTGGAAA 180
AGCATGGCCC GGGGCGCTGG GTGGTGTGCG CAGCGGTGCT GATCGGCTTC CTCTGTGTT 240
TGCTGGGGAT CGGCTTCTTG GTGTGGCATT TGCACTACCG GCAGTGGGCT GTCCAGAAAG 300
TCTTCATAGG CTACATGAGG ATCACAATG AGAATTTTGT GGATGCTTAC GAGAACTCCA 360
ACTCCACTGA GTTTGTAGC CTGGCCAGCA AGGTGAAGGA CGCGCTGAAG CTGCTGTACA 420
GCGGAGTCCC ATTCTGGGC CCTTACCACA AGGAGTGGGC TGTGACGGCC TTCAGGAGG 480
GCAGCGTCAT CGCTTACTAC TGGTCTGAGT TCAGCATCCC GCAGCACTTG GTGGAGGAGG 540
CCGAGCGCGT CATGGCGGAG GAGCGCTTAG TCATGCTGCC CCGCGGGGCG CGCTCTCTGA 600
AGTCTTTTGT GTTCACTCA GTGGTGGCTT TCCCAAGGGA CTCCAAACA GTACAGAGGA 660
CCAGGACAAA CAGCTGCAGC TTGTGCTTGC AGCCCGCGCG TGTGGAGCTG ATGGGCTTGA 720
CCAGCGCCCG CTTCCTGAC AGCCCTTACC CGCTCATGCG CCGCTGCGAG TGGGCCCTGC 780
GGGGGAGCGC CGACTCACTG CTGAGCCTCA CCTTCCGCGG CTTTGAOCTT GCGTCTGCG 840
ACGAGCGCGG CAGCGAGCTG GTGACGGTGT ACAACACCTT GAGCCCCATG GAGCCCCAG 900
CCCTGGTGCA GTTGTGTGGC ACCTACCTCT CCTCTACAA CCGTACCTTC CACTCTTCC 960
AGAAGCTCTT GCTCATACA CTGATAACCA ACCTGAGCG GCGGCATCCC GCTTTGAGG 1020
CCACTTCTT CTAGCTGCTT AGGATGAGCA GCTGTGGAGG CGCTTAAGT AAGGCCAAG 1080
GGACATTCAA CAGCCCTTAC TACCAGGCC ACTACCAACC CAACATTGAC TGCTCATGGA 1140
ACATTGAGGT GCGCAACAAC CAGCATGTGA AGGTGCGCTT CAATTTCTTC TACCTGTG 1200
AGCCCGCGGT GCTTGGGGC ACCTGCCCCA AGGACTACGT GGAGATCAAT GGGGAGAAAT 1260
ACTGCGGAGA GAGGTCCGAG TTGCTGTGCA CAGCAACAG CAACAGATC ACAGTTCGCT 1320
TCCACTCAGA TCAGTCTTAC ACGACACCG GCTTCTTAGC TGAATACCTC TCCTACGACT 1380

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CCAGTGACCC ATGCCCGGG CAGTTCACGT GCGGCAAGGG GGGGTGTATC CGGAAGGAGC 1440
TGCGCTGTGA TGGCTGGGAC GACTGCACCG ACCACAGCGA TGAGCTCAAC TGCAGTTGCG 1500
ACGCCCGCCA CCAGTTTCAGG TGCAAGAACA AGTTCTGCAA GCCCCTCTTC TGGGTCTGCG 1560
ACAGTGTGAA CGACTGCGGA GACAACAGCG AGGAGCAGGG GTGCAGTGTG CCGGCCGAGA 1620
CCTTCAGGTG TTCCAATGGG AAGTGCCTCT CGAAAAGCCA GCAGTGCAAT GGGGAAGGACG 1680
ACTGTGGGGA CCGGTCCGAC GAGGCTCTCT GCCCAAGGT GAACGTCTTC ACTTGTACCA 1740
AACACACCTA CCGCTGCCTC AATGGGCTCT GCTTGAGCAA GGGCAACCTT GAGTGTGACG 1800
GGAAGGAGGA CTGTAGCGAC GGCTCAGATG AGAAGGACTG CGACTGTGGG CTGCGGTCAAT 1860
TCACBAGACA GGCTCGTGTG GTTGGGGGCA CGGATGCGGA TGAGGGCGAG TGGCCCTGGC 1920
AGGTAAAGCT GCATGCTCTG GGGCAGGGCC ACATCTGCGG TGCTTCCCTC ATCTCTCCCA 1980
ACTGTGCTGT CTCTGCCGCA CACGTCTACA TCGATGACAG AGGATTCAAG TACTCAGACC 2040
CCACGCAAGT GACGGCCTTC CTGGGCTTGC ACGACGAGG CCAGCGCAGC GCCCCTGGGG 2100
TGCAAGAGCG CAGGCTCAAG CGCATCATCT CCCACCTCTT CTTCAATGAC TTCACCTCG 2160
ACTATGACAT CGCCTCTCTG GAGCTGGAGA AACGGGCGA GTACAGCTCC ATGGTGCGGC 2220
CCATCTGCTT CCGTACGCTG TCCCATGTCT TCCTTCCCGG CAAGGCCATC TGGGTACGG 2280
GCTGGGAGCA CACCAGTATG GAGGCACTG GCGCGTGTAT CCTGCAAAAG GGTGAGATCC 2340
GGGTATCAAA CCAGACCAAC TGGGAGAAC TCCTGCCGCA GCAGATCAGC CCGCGCATGA 2400
TGTGGGTGGG CTTCCTCAGC GGGGCGGTGG ACTCTGTCCA GGGTGATTCC GGGGGACCCC 2460
TGTCAGAGCT GGAGGCGGAT GGGCGGATCT TCAGGCGCGG TGTGTGTAGC TGGGGAGACG 2520
GCTGCGCTCA GAGGAACAGG CCAGGCGTGT ACACAGGCT CCTCTGTGTT CGGGAAGTGA 2580
TCAAGAGGAA CACTGGGGTA TAGGGGCGGG GGGCACCCAA ATGTGTACAC CTGCGGGGCC 2640
ACCCATCGTC CACCCGAGTG TGCAAGCCTG CAGGCTGGAG ACTGGACGCG TGACTGTGACC 2700
AGCGCCCCCA GAACATACAC TGTGAACCTA ATCTCCAGGG CTCCAATCT GCCTAGAAAA 2760
CGCTCTGCTT CCTCAGCTTC CAAAGTGGAG CTGGGAGGTA GAGGGGAGG ACCTCTGTGG 2820
TTCTACTGCT CCACTGGGGG GCAAAGGTTT GAAGACACAG CCTCCCCGCG CAGCCCCAAG 2880
CTGGGCGGAG GCGGCTTTGT GTATATCTGC CTCCCTGTCT TGTAGGAGC AGCGGGAACG 2940
GAGCTTGGGA GCTTCTCTAG TGAAGTGGT GGGGCTGGCG GATCTGGGCT GTGGGGCCCT 3000
TGGGCCACGC TCTTGAGGAA GCCCAGGCTC GGAGGACCTT GGAAGACAGA CGGCTCTGAG 3060
ACTGAAATG GTTTACCAAG TCCAGGTGTA CTCAGTGTG TGTATTGTGT AATGAGTAA 3120
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Seq ID NO: C23 DNA Sequence

Nucleic Acid Accession #: Eos sequence

Coding sequence: 1..2268

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AGCAAAATGA TGTGCTGCTC GGCCTGAGTG GACATCATGT TTCTGTTAGA TGGGTCTAAC 180
AGCGTCCGGA AAGGAGGATT TGAAGGTGCC AAGCACTTTG CCNTCAACGT CTGTGACGCT 240
CTGGACATCA GCGCCGAGAG GGTCAAGTGG GAGCATTCC AGTTCAGTTC CACTCTCTAT 300
CTGGAATTCC CCTTGGATTG ATTTTCAACC CAACAGGAAG TGAAGGCAAG AATCAAGAGG 360
ATGTTTTCCT GAGGAGAGGG CAAGGAGAGG GAACCTGCTC TGAATAACCT TCTGCACAGA 420
GGGTGCGCTG GAGGAGAGAA TGCTTCTGTG CCCAGATGCC TCATCATGCT CACTGATGGG 480
AAGTCCGAGG GGGATGTGGC ACTGCCATCC AAGCAGCTGA AGGAAAGGGG TGTCACTGTG 540
TTTGCTGTGG GGGTCAGGTT TCCAGGTGG GAGGAGCTGC ATGCACTGCG CAGCGAGCCT 600
AGAGGGCAGC ACGTGTCTGT GGCCTGAGCAG GTGGAGGATG CCACCAACGG CCTCTTCAGC 660
ACCCCTCAGC GCTCGGCGAT CTGCTCCAGC GCCACGCCAG ACTGCAAGGT CGAGGCTCAC 720
CCCTGTGAGC ACAGGAAGCT GGAGATGGTC CGGAGGTTGG CTGGCAATGC CCAATGCTGG 780
AGAGGATGCG GCGGACCTCT TGGGTGTGCT GCTGCACACT GTCCCTTCTA CAGCTGGAAG 840
AGAGTGTTCG TAACCCACCC TGCCACCTGC TACAGGACCA CCTGCCAGG CCCCTGTGAC 900
TGGCAGCCCT GCCAGAATGG AGGCACATGT GTTCCAGAAG GACTGGACGG CTACCAATGC 960
CTCTGCCCCG TGGCCCTTTGG AGGGAGAGGT AACTGTGCCC TGAAGCTGAG CTTGGAATGC 1020
AGGTTGAGCC TCTCTTCTCT GCTGGACAGC TCTGCGGGCA CCACCTCGGA CGGCTTCTTG 1080
CGGGCCAAAG TCTTCTGTGA GGGGTTTGTG CGGGCGGTGC TGAGCBAAGG CTCTCGGGCC 1140
CGAGTGGGTG TGGCCACATA CAGCAGGGAG CTGCTGTTGG CGGTGCTGCT GGGGAGTAC 1200
CAGGATGTGC CTGACCTGGT CTGAGGCTTC GATGGCATTC CCTTCCGTGG TGGCCCCACC 1260
CTGACGGGCA GTGCCCTTGG GCAGGCGGCA GAGCGTGGCT TCGGAGGCGC CACAGGACA 1320
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GAGGCGGTGC GGGCAGAGCT GAGGAGATC ACAGGCAAGC CAAAGCATGT GATGCTCTAC 1500
TGGATCTCTC AGGATCTGTT CAACCAAATC CCTGAGCTGC AGGGGAAGCT GTGAGCGGG 1560
CAGCGGCGAG GGTGCGCGAC ACAAGCCCTG GACCTGCTCT TCATGTTGGA CACCTCTGCC 1620
TCAGTAGGGC CCGAGAATTT TGCTCAGATG CAGAGCTTTG TGAGAAGCTG TGCCCTCCAG 1680
TTTGAAGTGA ACCCTGACGT GACACAGGTC GGCCTGTTGG TGTATGGCAG CCAGGTGCAG 1740
ACTGCTTTCG GCTTGGACAC CAACCCACCC CGGCTGCGA TGCTGCGGCG CATTAGCCAG 1800
GCTCCCTACC TAGGTGGGGT GGGCTCAGCC GGCACCGCCC TGCTGCACAT CTATGACAAA 1860
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GGCGGAGAG GCBAGAGGAA TCCAGCGGTT CCTGCCCCAG AGCTGAGGAA CAATGGCATC 1980
TCGTCTCTGG TGTGGGGCT GGGGCTGTCT CTAAGTGAAG GTCTGCGGAG GCTTGCAGTG 2040
CCCGGGGATT CCTTATCCA CGTGGCAGCT TACGCGGACC TGGCGTACCA CCAGGACGTC 2100
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TGATGAATG AGGGCAGCTG CGTCTGCGAG AATGGGAGCT ACCGCTGCAA GTGTGCGGAT 2220
GGCTGGGAG GGGCCACTG CAGGAACCGA TTCTGAGAC GGGCCCTGA 2268
  
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Seq ID NO: C24 DNA Sequence

Nucleic Acid Accession #: Eos sequence

Coding sequence: 1..2424

80

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1 11 21 31 41 51
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| | | | | | | | |
|----|-------------|------------|------------|------------|------------|------------|------|
| 5 | AGCAAAATGA | TGTGGTGCCT | GGCTGCAGTG | GACATCATGT | TTCTGTTAGA | TGGGTCTAAC | 180 |
| | AGCGTCGGGA | AAGGGAGCTT | TGAAAGGTCC | AAGCACTTTG | CCATCACAGT | CTGTGACGGT | 240 |
| | CTGGACATCA | GCCCGAGAG | GGTCAGAGTG | GGAGCATTC | AGTTCAATTC | CACCTCTCAT | 300 |
| | CTGGAATTCC | CCCTGGATTC | ATTTTCAACC | CAACAGGAAG | TGAAGGCAAG | AATCAAGAGG | 360 |
| | ATGGTTTTCA | AAGGAGGGCG | CACGGAGACG | GAACITGCTC | TGAATATCCT | TCTGCACAGA | 420 |
| | GGGTTGCCCTG | GAGGCAGAAA | TGCTTCTGTG | COCCAGATCC | TCATCATCGT | CACGTATGGG | 480 |
| | AAGTCCCAGG | GGGATGTGGC | ACTGCCATCC | AAGCAGCTGA | AGGAAAGGGG | TGTCACTGTG | 540 |
| | TTTGCTGTGG | GGGTGAGGTT | TCCAGGTGG | GAGGAGCTGC | ATGCACTGGC | CAGCGAGCCT | 600 |
| | AGAGGGCAGC | ACGTGCTGTT | GGCTGAGCAG | GTGGAGGATG | CCACCAACGG | CCTCTTCAGC | 660 |
| 10 | ACCCTCAGCA | GCTCGGCAT | CTGCTCCAGC | GCCACGCCAG | ACTGCAGGGT | CGAGGCTCAC | 720 |
| | CCCTGTGAGC | ACAGGACGCT | GGAGATGGTC | CGGGAGTTCC | CTGGCAATGC | CCCATGCTGG | 780 |
| | AGAGGATCGC | GGCGGACCTT | TGCGGTGCTG | GCTGCACACT | GTCCCTTCTA | CAGCTGGGAG | 840 |
| | AGAGTGTTC | TAAACCAACC | TGCCACCTGC | TACAGGAACA | CCTGCCACGG | CCCCTGTGAC | 900 |
| | TGCGAGCCCT | GCCAGAAATG | AGGCACATGT | GTTCAGGAAG | GACTGGACGG | CTACCAATGC | 960 |
| 15 | CTCTGCCCCG | TGGGCTTTGG | AGGGGAGGCT | AACTGTGCCC | TGAAGCTGAG | CCTGGAATGC | 1020 |
| | AGGTTGAGCC | TGCTCTTCTT | GCTGGACAGC | TCTGCCGGCA | CCACTCTGGA | CGGCTTCTTG | 1080 |
| | CGGGCCAAAG | TCTTGTGAA | GCGGTTTGTG | CGGGCGGTGC | TGAGCGAGGA | CTCTCGGGCC | 1140 |
| | CGAGTGGGTG | TGGCCACATA | CAGCAGGGAG | CTGCTGGTGG | CGGTGCTGTG | GGGGGASTAC | 1200 |
| | CAGGATGTGC | CTGACCTGGT | CTGGAGCCTC | GATGGCATTG | CCTTCCGTGG | TGGCCCCACC | 1260 |
| 20 | CTGACGGGCA | GTGCGTTGCG | GCAGGCGGCA | GAGCGTGCTT | TGGGAGGCGC | CACCAAGACA | 1320 |
| | GGCCAGGAGC | GGCCACGTAG | AGTGGTGGTT | TTGCTCACTG | AGTCAACATC | CGAGGATGAG | 1380 |
| | GTTCGGGGCC | CAGCGGCTCA | CGCAAGGGCG | CGAGAGCTGC | TCTCTGTGGG | TGTAGGCAAT | 1440 |
| | GAGGCCGTGC | GGGCAGAGCT | GGAGGAGATC | ACAGGCAAGC | CAAGCATGT | GATGCTCTAC | 1500 |
| 25 | TCCGATCCTC | AGGATCTGTT | CAACCAATTC | CCTGAGCTGC | AGGGGAAGCT | GTGCAGCGGG | 1560 |
| | CAGCGGCCAG | GGTGCAGGAC | ACAAGCCCTG | GAACCTGCTT | TCATGTTGGA | CACCTCTGCC | 1620 |
| | TCAGTAGGGC | CCGAGAAATT | TGCTCAGATG | CAGAGCTTTG | TGAAGAGCTG | TGCCCTCCAG | 1680 |
| | TTTGAGGTGA | ACCTTGAGCT | GACACAGGTC | GGCTTGGTGG | TGTATGGCAG | CCAGGTGCAG | 1740 |
| | ACTGCCCTTG | GGCTGAGCAC | CAAAACCAAC | CGGGCTGGGA | TGCTGCGGGC | CATTAGCCAG | 1800 |
| 30 | GCCTCCCTAC | TAGGTGGGCT | GGGCTCAGCC | GGCACCGCCC | TGCTGCACAT | CTATGACAAA | 1860 |
| | GTGATGACCG | TGCAGAGGGG | TGCCCGGCTT | GGTGTCCCCA | AAGCTGTGGT | GGTCTCACA | 1920 |
| | GGCGGAGAGG | GGCAGAGGGA | TGCAGCCGTT | CCTGCCAGGA | AGCTGAGGAA | CAATGGCATT | 1980 |
| | TCTGTCTTGG | TCTTGGGGCT | GGGGCTGTGC | CTAAGTGAGG | GTCTGCGGAG | GCTTGCAGGT | 2040 |
| | CCCGGGGATT | CCCTGATCCA | CGTGGCAGCT | TACGCCAGCC | TGCGGTACCA | CCAGGACGTG | 2100 |
| 35 | CTCATTGAGT | GGCTGTGTGG | AGAGGCCAAG | CAGCCAGTCA | ACCTCTGCAA | ACCCAGCCCG | 2160 |
| | TGCATGAATG | AGGGCAGCTG | CGTCTGTCAG | AATGGGAGCT | ACCGCTGCAA | GTGTGCGGAT | 2220 |
| | GGCTGGGAGG | GCCTCCACTG | CGAGAACCTT | GATGGAGGCT | CTTGTCTGTG | ATGTGTGAGC | 2280 |
| | CAGGGATGGA | TCTTGTGAGC | GCCCTGAGG | CACATGGCTC | CGGTGCAGGA | GGGCAGCAGC | 2340 |
| | CGTACCCCTC | CCAGCAACTA | CAGAGAAGGC | CTGGGCACTG | AAATGGTGCC | TACCTTCTGG | 2400 |
| 40 | AAATGCTGTG | CCCCAGGTCC | TTAG | | | | 2424 |

Seq ID NO: C25 DNA Sequence
Nucleic Acid Accession #: XM_097386.3
Coding sequence: 142..795

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| 45 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | CTGCAGAAC | CACCTGGACT | CTGTCCGCTG | CTGTCCCGCG | GCCTCCAGGG | CTCCTCTCCC | 60 |
| | GGGACCCCGG | TCCACGCGCT | GGGCCCCGCG | CGGGGGGAAG | CGCTGCTGTC | CTATCTCTGT | 120 |
| 50 | CTACCTCAGG | CTGACTTTT | GATGCCAAAA | TCTGAGCCCC | TGGGTGCGCT | CYCCCCCGCC | 180 |
| | TCCCGTGAC | CAGGGTCTGC | AGCAGCCACT | GGGGCCTGGC | TGCTGCTGTC | ATCTGGCGGC | 240 |
| | CCCTGGACCC | TGGGGCCCCC | GTGCACCTGC | CCACTCTGGA | GCCTGGGGAG | GGGCGGTGCA | 300 |
| | GGGTGAGGG | CTGGGTGCTC | TCCCTCGGCG | TGCGTGTGTG | TGTGGGGAAT | CCTGCGTGTG | 360 |
| | GTGTCTGTGG | GGATCCGCG | CTCCCGCGCG | TGGGTGGACC | TGGATTCTAA | CTCAGAGGAC | 420 |
| 55 | TTGAGCCTGC | TGTTAACTCC | GATGATTGTA | GGACAGGGCG | GGGTGGGTGG | GGGGTGGGGG | 480 |
| | CGAGGCTGGG | TCCCGGCCCA | GGAGAGGAGAA | GTGCTGGAAG | GCAGTGCCCA | TGCTGGCGGT | 540 |
| | GGAAATGGGA | GGCAGTGTGA | GAGGGTCTAT | GGGGCCCGGT | CCTGGATACT | CGGCAAGGAG | 600 |
| | CCGTGTCTGC | AGAGGCTCCT | CCCTGCCCTCA | GGTGGCCCCG | TTCAACCCCA | GGCGTGCCCA | 660 |
| | TCTCTGACCA | CGGCTGTGCG | GTGGGGGTTT | AAATCGGGTG | TGGCTTCTGT | GGGTGCAGCT | 720 |
| 60 | CAGCACCCCG | CCTTATGCG | ACTGGGAGGG | GGTGGGGCAG | TCCCTCAGC | CACGAGGACC | 780 |
| | CTGGATGGGT | TCTAGTTTAC | TGGGACCGT | GGGGCCTGGC | TGGTACTGTA | GTTGGTGCCT | 840 |
| | CACAGTCAAG | GCCAAAGGGG | GCTCCCGCTG | CTCTGAGATG | TTGGGAGAAA | GGCGGCTTCT | 900 |
| | GGAACTTCTC | GTGGGACCCG | TAAGTGGCTG | TCCAGAAAGG | CGGGAGGGTG | GGCAGGGGGC | 960 |
| | ACGGGGGGCA | GCTGGGGTGG | TGTTAAGGG | TCAAGCATCT | GTACAGTTGA | ATTTCCTTTT | 1020 |
| 65 | TCTTATCATG | TTTATACCA | CTTGTCCCTT | TTTCCCCAA | TTGTGCTTTT | GCAITTTTTT | 1080 |
| | CCITGGCAAA | TGTAAACTCA | GCCTTTCTAT | CATGACGTGT | GAAATTTTCA | TTTCTCTGGA | 1140 |
| | GTCTGTGAGA | CGGGTGGGGA | ACCAAGCCCTG | AAACTCAGGT | AATAGGAGGA | AAAAAATAAA | 1200 |
| | AACITAAAAA | AATTTTAAAA | AAACATAAAA | CTACTCTCTA | CCTCTGGCTG | GGCCAGCCTT | 1260 |
| | GTCTGCGCCT | GGCGCGGGCA | GGGTGGCCTG | TACAAATTTT | AGTTTTTCGA | GAACATTCAG | 1320 |
| 70 | GTATTAAG | AAAAAA | | | | | 1337 |

Seq ID NO: C26 DNA Sequence
Nucleic Acid Accession #: Bos sequence
Coding sequence: 95..2128

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| 75 | 1 | 11 | 21 | 31 | 41 | 51 | |
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| | CTCCTGGAAA | GGAGAGACAC | CAGCATTGTC | CACAATGCTG | TCATCCACTG | ACTTTACATT | 120 |
| 80 | TGCTTCTTGG | GAGCTTGTGG | TCCGCTGGA | CCATCCCAAT | GAAGAGCAGC | AGAAAGACGT | 180 |
| | CACACTGAGA | GTAITCTGGG | ACCTTCATGT | TGGAGGAGTG | ATGCTCAAGT | TAGTAGAACA | 240 |
| | GATCAATATA | TCCCAAGACT | GGTCAGACTT | TGCTCTTTGG | TGGGAACAGA | AGCATTCCTG | 300 |
| | GCTTCTGAAA | ACCCACTGGA | CCCTGGACAA | ATATGGGGTC | CAGGCAGATG | CAAGCTTCTT | 360 |
| | CTTCAACCTT | CAGCATAAAA | TGCTGCGCCT | TGCTGCGCG | AATTTGAAGA | TGGTGGGTTT | 420 |
| | GCGAGTCAGC | TTCTCAGCTG | TGTTTAAAA | AGCTGTCTGT | GATATCTGCA | AAATCCTGAA | 480 |

| | | | | | | | |
|----|-------------|------------|------------|------------|-------------|------------|------|
| | TATTAGAAGA | TCAGAAGAGC | TTTCCTTGTT | AAAGCCGTCT | GGTGACTATT | TTAAGAAGAA | 540 |
| | GAAGAAAAAA | GACAAAAATA | ATAAGGAACC | CATAATTGAA | GATATTCTAA | ACCTGGAGAG | 600 |
| | TTCTCCAACA | GCTTCAGGTT | CATCAGTAAG | TCCTGGTTTA | TACAGTAAAA | CCATGACCCC | 660 |
| 5 | TATATATGAC | CCCATCAATG | GAACACCAGC | ATCATCCACC | ATGACTTGGT | TCAGTGACAG | 720 |
| | CCCTTTGACG | GAACAAACTT | GCAGCATCCT | CGCATTCAGC | CAACCCCCCC | AGTCCCCAGA | 780 |
| | AGCAGTTGCG | GATATGTACC | AGCCTCGGTC | TCTGGTTGAT | AAAGCCAGCC | TCAATGCAGG | 840 |
| | TTGGCTAGAC | TCCTCACGCT | CCCTTATGGA | ACAAGGCATC | CAAGAGGATG | AGCAGCTGCT | 900 |
| | CTTAAGATT | AAATATTATT | CTTCTTCGGA | CTTGAATCCT | AAATATGATG | CTGTCCGAAT | 960 |
| | AAACCAACTC | TATGAGCAAG | CCAGGTGGGC | CATTCTCTTA | GAAGAAATTG | ATTGCACAGA | 1020 |
| 10 | GGAAGAAATG | TGTATCTTTG | CAGCTCTACA | GTACCACATT | AGCAAACTGT | CGTTGTCTGC | 1080 |
| | TGAACACAG | GATTTTGACG | GCGAGTCCGA | GGTTGATGAA | ATAGAAGCGG | CGCTTTCTAA | 1140 |
| | TTTGAAGTA | ACCTTAGAAG | GTGGAAAAGC | GGACAGCCTT | TTGGAGGACA | TTACTGATAT | 1200 |
| | CCCTAAACTT | GCAGATAATC | TCAAAATTAT | TAGGCCCAAG | AGTTACTTAC | CAAAAGCTTT | 1260 |
| 15 | CAACCAATAT | TGGTTTATCT | TTAAAGACAC | ATCCATAGCA | TACTTTAAAA | ATAAGGAATC | 1320 |
| | TGAACAGGA | GAACCTACAG | AAAAACTAAA | TCTTAGAGGC | TGCGAAGTTG | TGCCCATGAT | 1380 |
| | AAATGTAGCA | GGAGAGAAAT | TTGGAATCAA | GTACTAATC | CCTGTTGCGG | AIGGTATGAA | 1440 |
| | TGAAGTGTAT | TTGAGATGCG | ACCATGAGAA | TCAATACGCC | CAATGAGTGG | CTGCTGCAT | 1500 |
| | GTGGCATCG | AAGGGCAAAA | CCATGGCAGA | CAGCTCCTAC | CAGCCAGAGG | TCCTCAACAT | 1560 |
| | CCTTTCATTT | CTGAGGATGA | AAAAACAGGA | CTCTGCATCT | CAGGTGGCTT | CTAGTCTCGA | 1620 |
| 20 | AAACATGGAT | ATGAACCCAG | AATGTTTGT | GTACACACGG | TGTGCAAAA | GACACAAATC | 1680 |
| | CAACACAGCT | GCCGCCCGGA | TCTTGGAGGC | GCACAGAAAC | GTGGCCCAAG | TGCCCTCTGT | 1740 |
| | CGAAGCCATG | CTCGGTTTCA | TCCAGGCGTG | GCAGTCACTG | CCTBAGTTTG | GCCTCACCTA | 1800 |
| | CTACCTTGT | AGATTTAAG | GAAGCAAAA | AGATGACATT | CTGGGAGTTT | CATATAACAG | 1860 |
| 25 | GTGATTAATA | ATTGATSCAG | CCACCGGAT | TCCAGTGACA | ACATGAGAT | TCAAAATAT | 1920 |
| | CAACAGTGG | ATGTAAACT | GGGAAACCCG | GCAGGTGGTC | ATCGAGTTTG | ACCAAAACGT | 1980 |
| | CTTTACTGCT | TTACCTTGCC | TGAGTGACGA | TTGCAAGATT | GTGCAAGAT | ACATTGGCGG | 2040 |
| | CTACATTTTC | TGTGCTACCC | GCTCCAGGA | CCAGAAATGA | ACACTCGATG | AGGACTTGTT | 2100 |
| | CCACAAATTG | ACCGGCGGTC | AGGATTGAAA | CAAGCAAGCG | TGCTCGGCTC | ACACCAACAA | 2160 |
| 30 | GGCAAGCCAA | AGGCGCCCT | CCCCAGAGG | ATCCCTAAG | TGCCCCAGCAT | GTAGATTCTG | 2220 |
| | GACTAACAGA | CAACATACAT | TCACCGCTGG | TCACCCAGAT | CCTCATTCAA | ACCCACTGCT | 2280 |
| | GGCAGATCCC | TTTCTTACT | TTGCCCTGTG | CTACCCAGCA | CGAAGAGAGC | CTCTCTTGTT | 2340 |
| | TTTTCTATAA | AATGGGTAGG | CAGGAGAAAA | GCAGGTGCC | TAAGATTGCT | TAAAGGCCCA | 2400 |
| | GCATGTGGTT | ACAGTTCTCT | GACTTGACGA | ACCTGCCAGG | TGTATGCTA | CAGTTATACC | 2460 |
| 35 | TCGTGCTGAT | CTGTCTCAT | ACTAAGTCAA | TGGAGAAGAC | AGAAAGGTAA | AAATCAGCTG | 2520 |
| | TAGCAAGAAC | AACTCTTATT | TCACAACTC | AGGTATGAAA | CGAAACGCC | GTCTCTCATG | 2580 |
| | GAAGTCTTTT | TAGTTCCTGT | CTTTTCAAAA | TGGCAGAGGG | AGTTCCCTACA | CACACTTTTT | 2640 |
| | CCCTGGAGGC | CAAGGTCTAG | GGGTAGAAAG | GGGAGGGGTG | GGGCTACCAG | GTAGCAGTTG | 2700 |
| | ACAACCAAG | GTACAGAGAG | TGGCCCTCAG | TGTCTCTGTT | CCACAGTGAT | ACCTGCCAAG | 2760 |
| 40 | ATGACCACTG | ACCCACATCT | GGTCTTAGTC | ATTGGTCTCC | TCAGATTTC | GGGGCCACCT | 2820 |
| | GCAAGCCCA | TTCCATTCCT | ACAGATCTCT | CAGCCACCTG | TAGTCTCTTT | GTGAAGATGT | 2880 |
| | GGGTGACACA | GGGGACAGG | AAAAACCAAT | TCTCAACCCA | GATCCATGTC | TCCACGCTCT | 2940 |
| | CTACTCTGGG | TTGGGATTC | GGAGACAGG | CACAGTCCTC | TCTGTTGATA | GAACACCTG | 3000 |
| | CCAGTGTCAA | GGATTCCAGT | CAGGTGTCTA | TCCCAACTGG | TCAGGGAGAG | AAGGGCAGAC | 3060 |
| 45 | CCATTCTCAA | AGACCACCAT | GTCCAAGGTC | TGACAGCTCC | CCACTGGCTG | CCGCCACAGG | 3120 |
| | GGCTTTAGGC | TGGTCTGGGT | CATGGGGAAG | CGTCCCTCTT | ATCGCTGGTC | TGTGTTCTCC | 3180 |
| | TGGATTGCTG | ATCTATGTTG | GTACAGCTCC | TGGCCCTTTA | TCTAAAGGAC | TTTGGCTTTT | 3240 |
| | GTAATACACA | AGCCAAATA | AGACTTTTTT | CTCCCTCTCT | GTTTTGTGCT | GTGTCTCTCT | 3300 |
| | TGCTTGTAGA | CTGCCCTGAG | ACAGTGTCTG | CCTTGAGAGA | GTGAGCCAAT | TAAACAGTGC | 3360 |
| 50 | CTGAATTGTC | ATTTTCCATT | TTGGTTTGTT | AGAGGTGGGA | GGGTTGGGTT | TTGAGAGGTT | 3420 |
| | CAAAGCAAT | ACCAAGAGTA | AAGGGAATA | TCAGCAATA | TTTTATTATT | TTTTCTATGA | 3480 |
| | TGTTCTGCCA | CACAAGAAC | TTGGGGTGT | AGGATAAGGC | AAAAGCTCCA | ATCCCATTTT | 3540 |
| | TCAGTTCTCC | TAGGATGCAC | CCCTCAGGGA | GCCTGGCCAG | AGTTCCGAGG | CCCGTGAGCG | 3600 |
| | TCAGCTGTTG | CITTTATTTT | CATCAAAAGC | CCTTGAGAG | TGAGACCTCA | GCAATTCCGG | 3660 |
| 55 | GAGCCACATA | GAGACAGACT | TGGCAAGGGA | CCCCCTGGTT | CTGAGCCAGT | AGCTGCCATC | 3720 |
| | TGGAAATTCC | TCITTTAGCC | TCCTCTTAGA | GGTGAATGTG | AATGAAGCCT | CCGAGGCACC | 3780 |
| | CGCTGAATTT | CTGAGGCCCT | GCTTAAAGCT | CAGAAGTGGT | TTAGGCATTT | GGAAAATCTG | 3840 |
| | GTTTCACATCA | TAAAGAACTT | GATTTGAAT | GTTTTCTATA | GAAACAAAGT | CTAAGGTGAC | 3900 |
| | CGTATTATAC | TGATGTTGG | TCATTTCTCA | GTCTATTTC | TCAGTTCTAT | TATTTTAGAA | 3960 |
| 60 | CCTAGTCAGT | TCITTAAGAT | TATAACTGGT | CCTACATTAA | AATAATGCTT | CTGATGTGCA | 4020 |
| | GATTTTACCT | GTGCTGCT | GAGAACATCT | CTGCCATATT | TACCAAGGCC | AGACCTTCAG | 4080 |
| | TTCAACATGC | TTCTTAGCT | TTTCATAGTT | GTCTGACATT | TCCATGAAAA | CAAAGGAACC | 4140 |
| | AACTTTGTTT | TAAACAAACT | TTGTTTGGTT | ACAGTTTTC | GGGGAGCGTT | TCTTCCATGA | 4200 |
| | CACACAGCAA | CATCCCAAG | AAATAAACAA | GTGTGACAAA | AAAAAANA | AACAAACCTA | 4260 |
| 65 | AATGCTACTG | TTCCAAAGAG | CAACTTGATG | GTTTTTTTTA | ATAGTGAATG | CAAAGGTC | 4320 |
| | CCCAATTTCC | TATGATGAAA | TTTTAAATTA | ATGGGCACCT | TTCAACATCA | TTTGTCTCT | 4380 |
| | TATCTACAGT | TGATTAGAAA | ATCTGCATTT | TTTATTCTTT | TATATGACTT | TTAGTAAANA | 4440 |
| | GATTTATATG | GATTTGAAAA | AAAAAANA | A | | | 4471 |

Seq ID NO: C27 Protein Sequence
Protein Accession #: NP_005162.1

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| | 1 | 11 | 21 | 31 | 41 | 51 | |
| | MDGGTLPSRA | PPAPPVPVCC | AARRRPASPE | LLRCSRREBP | ATAETGGGAA | AVARRNERER | 60 |
| 75 | NRVKLVNLOF | QALRQHVPBG | GASKKLSKVE | TLRSAYEYIR | ALQRLAEHD | AVRNALAGGL | 120 |
| | RFQAVRPSAP | RSPGTTTPVA | ASPSRASSP | GRGGSEPSG | PRSAVSDDS | GCEGALSPAE | 180 |
| | RELLDFSSWL | GGY | | | | | 193 |

Seq ID NO: C28 DNA Sequence
Nucleic Acid Accession #: NM_017763
Coding sequence: 169..2520

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 60
 65

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CACCAGCTGC AGCTGGCTGC CCTCTGGCCC TGGCTGCTGA TGGCTACCTT GCAGGCAGGC 240
TTTGGACGCA CAGGACTGGT ACTGGCAGCA GCGGTGGAGT CTGAAAGATC AGCAGAACAG 300
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CCACAAAAA AAAAAAAAAA AA 3802
  
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Seq ID NO: C29 Protein Sequence
Protein Accession #: NP_004280.2

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Seq ID NO: C30 DNA Sequence
Nucleic Acid Accession #: NM_004442
Coding sequence: 19..2982

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| 5 | TGGATGGTGC | ATCTTCCATC | AGGGTGGGAA | GAGGTGAGTG | GCTACGATBA | GAACATGAAC | 180 |
| | ACGATCCGCA | CGTACCAGGT | GTGCAACGTG | TTTGAGTCAA | GCCAGAACAA | CTGGCTACGG | 240 |
| | ACCAAGTTTA | TCCGCGCGCG | TGGCGCCAC | CGCATCCACG | TGGAGATGAA | GTCTTCCGTTG | 300 |
| | CGTGACTGCA | GCAGCATCC | CAGCGTGCT | GGCTCCTGCA | AGGAGACCTT | CAACCTCTAT | 360 |
| | TACTATGAGG | CTGACTTTGA | CTCGGCCACC | AAGACCTTCC | CCAACCTGGAT | GGAGATCCCA | 420 |
| 10 | TGGGTGAAG | TGGATACCAT | TGCAGCCGAC | GAGAGCTTCT | CCCAGGTGGA | CCTGGGTGGC | 480 |
| | CGCGTACATG | AAATCAACAC | CGAGGTGCGG | AGCTTGGGAC | CTGTGTCCCG | CAGCGGCTTC | 540 |
| | TACCTGGCCT | TCCAGGACTA | TGGCGGCTGC | ATGTCCCTCA | TGCGCGTGCG | TGTCTTCTAC | 600 |
| | CGCAAGTGCC | CCCGCATCAT | CCAGAATGGC | GCCATCTTCC | AGGAAACCCCT | GTCGGGGGCT | 660 |
| | GAGAGCACAT | CGCTGGTGGC | TGCCCGGGGC | AGCTGCATCG | CCAATGCCGA | AGAGGTGGAT | 720 |
| 15 | GTACCCATCA | AGCTCTACTG | TAACGGGGAC | GGCGAGTGGC | TGGTGGCCAT | CGGGCGCTGC | 780 |
| | ATGTGCAAG | CAGGCTTCGA | GGCGGTTGAG | AATGGCACCG | TCTGCGGAGG | TTGTCCATCT | 840 |
| | GGGACTTTCA | AGGCCAACCA | AGGGGATGAG | GCTGTATACC | ACTGTCCCAT | CAACAGCCCG | 900 |
| | ACCATTCTCG | AAGGGGCCAC | CAACTGTGTC | TGCCGCAATG | GCTACTACAG | AGCAGACCTG | 960 |
| | GAACCCCTGG | ACATGCCCTG | CACCAACATC | CCCTCCGCGC | CCCAGGCTGT | GATTTCAGT | 1020 |
| 20 | GTCAATGAGA | CTTCCCTCAT | GCTGGAGTGG | AACCCCTCCC | GCGACTCCCG | AGGCGAGAG | 1080 |
| | GACTCGTCT | ACAACATCAT | CTGCAAGAGC | TGTGGCTCGG | GCCGGGGTGC | CTGCACCCGC | 1140 |
| | TGCGGGGACA | ATGTACAGTA | CGCACCCAGC | CAGCTAGGCC | TGACCGAGCC | ACGCAATTAC | 1200 |
| | ACTAGTGACC | TGCTGGCCCA | CACCCAGTAC | ACCTTGAGGA | TCCAGGCTGT | GAACGGGGTT | 1260 |
| | ACTGACAGGA | GGCCCTTCTC | GCTTCAGTTC | GCTTCGTGA | ACATCACCAC | CAACCAGGCA | 1320 |
| 25 | GCTCCATCCG | CAGTGTCCAT | CATGCATCAG | GTGAGCCGCA | COSTGGACAG | CATTACCCCTG | 1380 |
| | TGCTGGTCCC | AGCTAGACGA | GCCCAATGGC | GTGATCTCTG | ACTATGAGCT | GCAGTACTAT | 1440 |
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| 30 | ACAAGCATCC | AGGAGAGTGT | GCCACTCATC | ATCGGCTCCT | CGGCGGCTGG | CCTGGTCTTC | 1680 |
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| 35 | GAGGTCTGCA | GTGCGCACCT | GAGCTGCCCA | GGCAAGAGAG | AGATCTTTGT | GGCCATCAAG | 1980 |
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| 65 | GCAGCTCCAG | GTACATATCA | CGCCACACAG | CTGGCAGCCT | GGCCCTCTCT | GTGCCCATCT | 3780 |
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| 75 | TCCCTGCCCA | CTTCCCACTC | TCTTGCCCCA | ATCTATCTAG | TACTTCCCAG | GCAATAGGCT | 4380 |
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| | GTGCTGCAAT | AAACATACGT | GTGCAATGCT | CTTTATAGTA | GAATGATCTA | TAATCCTCTG | 4800 |
| | GGTATGTACC | CAGTAATGGG | ATTGCTGGGT | CAAAATGGTT | TTCTGGTTCT | AGATCCCTGA | 4860 |
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| | AAAGCTTCTC | TGTTTCTCCA | CATCTCTCC | AGCATCTGTT | GTTCCTGAC | TTTTTAATGA | 4980 |

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20 Seq ID NO: C31 DNA Sequence
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 Coding sequence: 145..1260

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70 Seq ID NO: C32 DNA Sequence
 Nucleic Acid Accession #: NM_012445.1
 Coding sequence: 276..1271

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Seq ID NO: C33 DNA Sequence
Nucleic Acid Accession #: Eos sequence
Coding sequence: 1..1314

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Coding sequence: 148..2037

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Seq ID NO: C35 DNA Sequence
 Nucleic Acid Accession #: NM_002776.1
 Coding sequence: 82..912

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Seq ID NO: C36 DNA Sequence
 Nucleic Acid Accession #: XM_095088
 Coding sequence: 1..4074

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 GAGCTGCCAA CGGGGTGTCT GAGGGGCTTG AGCCAGCGGC GCGGGCGCA GCCGGAGCA 240
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Seq ID NO: C37 DNA Sequence
Nucleic Acid Accession #: NM_032044
Coding sequence: 182..658

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GATGGCTTCC AGAAGCATGC GGCTGCTCCT ATTGCTGAGC TGCCCTGGCC AAACAGGAGT 240
CCTGGGTGAT ATCATCATGA GACCCAGCTG TGCTCCTGGA TGGTTTACC ACAAGTCAA 300
TTGCTATGGT TACTTCAGGA AGCTGAGGAA CTGGTCTGAT GCGAGCTCG AGTGTGAGT 360
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Seq ID NO: C38 DNA Sequence
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Coding sequence: 52..3042

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AAGATGATCA CAGGAGACTC CTACCCAGGG TACATCCCCA AGCCAGGCA AACTGCAAT 960
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| | GGAAATGTACT | CCCCAGGTTA | TTCAGAGCAC | ATTCCACTGG | AAAAATTCTA | TAACAACCGA | 1140 |
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| 5 | GAAGCCGACC | CSCTGAAGCC | COGGGAGCCG | GCCATCATCA | GACACTTCAT | TGCCCTACAG | 1320 |
| | AACCAGGACC | ACGAGGCCCT | GCTGCGCGGC | GGGGATGTGT | GGCTGGACAG | CTGCCGGTTT | 1380 |
| | GCTGACAAAT | GCAATGGCCCT | GACCCCTGGC | AGTGGTGGAA | CCTTCCCGTA | TGACGACGGC | 1440 |
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| | ATGATGGACA | ATAGGATCTG | GGGCOCTGGC | GGCTTGGACC | ATAGCGGAAG | GACCTCCCTT | 1560 |
| 10 | ATAGGCCAGA | ATTTTCCAAT | TAGAGGAAT | CAGTTATATG | ATGGCCCCAT | CAACATCCAA | 1620 |
| | AATTCGACTT | TCCGAAAGTT | TGTGGCCCTG | GAGGGCCGGC | ACACCAGCGC | CCTGGCCCTT | 1680 |
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| | GACGTTCCGA | TTACTTCCAG | AGTGTCTTTC | GGAGAGCCTG | GGCCCTGGIT | CAACCAGCTG | 1800 |
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| 15 | CCTGGCTCCT | ACCTCACGAA | GAATGACAAC | TGGCTGGTCC | GGCACCAGCA | CTGCATCAAT | 1920 |
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| | TACAGAGCCA | GTAACTCTGG | AATGAAGATC | ATCAAGAAATG | ACTTCCCGAG | CCACCCCTCT | 2040 |
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| | CTGCAAGAGG | GCTACACCAT | CCAATGGGAC | CAGAAGCGCC | CGCCCGAATC | CGCCATCTGG | 2160 |
| 20 | CTCATCAACT | TCAACAAGGG | CGACTGGATC | CGAGTGGGGC | TCTGTACCCG | CGGAGGCACC | 2220 |
| | ACATTCCTCA | TCTCTCTCGA | TGTTCACAAT | CGCTGTCTGA | AGCAAAACGC | CAAGACGGGC | 2280 |
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| 25 | CCAAAGAACG | CAGGCGTCAG | TGACTGCACA | GCCACAGCTT | ACCCCAAGTT | CACCGAGGAC | 2520 |
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| | TTCCCTTACA | TGAAAGTGA | TGGGAAGAA | TACCCAGTT | CGGAGGATG | CATCCAGGTG | 2700 |
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| 30 | CTGCAAGGCA | TACCATGGCA | GCTTTTCAAC | TATGTGGCGA | CCATCCCTGA | CAATTCCTCA | 2820 |
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| 35 | GCCACCTCCT | GGTAGACTAT | GACGCTBACT | CTTGGCAGCA | GACCACTGGG | GGATGGCTGG | 3120 |
| | GTCCCCGAGC | CCCTGCCAGC | AGCTGCTCTG | GAAGGCCGTG | TTTCAGCCCT | GATGGGCCAA | 3180 |
| | GGGAAGGCTA | TGAGAGACCC | TGGTGTCTCC | ACCTGCCCTT | ACTCAAGTGT | CTAOCCTGAG | 3240 |
| | CCCTGGGGGC | GGGCTGTGGC | AATGCTGGAA | ACATTCACCT | TCTGTGAGCC | TCTTGGGTGC | 3300 |
| | TTCTCTCTTA | TCTGTGCTTC | TTCACTGGGG | GTTTGGGGAC | CATATCAGGA | GACCTGGGTT | 3360 |
| 40 | GTGCTGACAG | CAAGATGCCA | CTTTGGCAGG | AGCCCTGACC | CAGCTAGGAG | GTAGTCTGGA | 3420 |
| | GGGCTGTGTA | TTACAGATAT | CCCATGGTCT | TCAGCAGACA | AGTAGGGGTG | GTAAATGTAG | 3480 |
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| 45 | AGGCCCTTTT | AGTTCTGAGA | TTCCAGAAAT | CTGCTGCATT | TCACATGGTA | CCTGGAAACC | 3720 |
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| 50 | TTTGTCTGGG | GGAGATGAGG | CAGCCTCTGG | AATGGCTCAG | GGATTCAGCC | CTCCCTGCGG | 4020 |
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| | ATTAGTCTCC | CAGGCAAGCC | TGCTCTGAC | TCCAAGAGGG | TGAAGTCCAC | AGAAGTGAGC | 4200 |
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| 55 | AGACCCTAGA | TGTGCTCGTA | CTCCCTCGGC | CTGGGATTTT | AGAGCTGGAA | ATATAGAAAA | 4320 |
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| | GACAAGTCCC | CTCGAAGGAA | AGGAATGAC | TAGAGTAGAA | TGACAGCTAG | CAGATCTCTT | 4560 |
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| | CTTCACTTTG | TTCACTACCT | GTGAGCCGAG | CCTGGGTGCA | CAGTAGCTGC | AATCCTCCAT | 4680 |
| | TGGTCTTACC | TGGCTCTCCT | GTCTCTGACG | CTCTACAGGT | GAGGCCCGAG | AGAGGGAGTA | 4740 |
| | GGGCTGGCCA | TGTTTCTGGT | GAGCCCAATT | GGCTGATCTT | GGGTGTCTGA | ACAGCTATTG | 4800 |
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| 65 | ATAGAGAGCC | CAAGAGCTTC | CTGTAGAGG | GAGAACTCTA | TCTGTGTTTT | ATAATCTTGC | 4920 |
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| | CAACCAACAA | CTCTTTCTCT | CAAGAGGGGC | CTGGCTGGCT | CCCTCCACCC | AACCTGCACC | 5040 |
| | ATGAGACTCG | GTCCAAGAGT | CCATTCCCCA | GCTGGGAGCC | AACCTGTCAGG | GAGGCTCTTC | 5100 |
| | CCACCAACAA | TCTTTTCACT | GCTGGGAGGT | GACCATAGGG | CCTCTCTTTT | AAAGATATGG | 5160 |
| 70 | CTGCTTCAAA | GGCCAGAGTC | ACAGGAGGGA | CTTCTTCCAG | GGAGATTAGT | GGTGTGGAG | 5220 |
| | AGGAGAGTTA | AAATGACCTC | ATGTCCTTCT | TGTCACAGGT | TTTGTGAGT | TTTCACTCTT | 5280 |
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| | AATGTTGAAT | CTTATTTGGT | CAGTTTCAAT | AAAAAAGATA | TCTATTGAA | AGTTCTCAGA | 5400 |
| | GTGTACATA | TGTTTTCACG | TACAGGATCT | GTACATAAAA | GTTCCTTTCC | TAAACCATTC | 5460 |
| 75 | ACCAAGAGCC | ATATCTTAGG | CATTTTCTTG | GTAGCACA | TTTCTTATT | GCTTAGAAAA | 5520 |
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| | AGCTCTCTCT | GAATGCTTTC | TCTTTTCTCT | GTGCGGAAA | TAGCTGTGTC | TTTTCGGGGA | 5640 |
| | GTATAGATGA | TAGAGTGTTC | GTATGTAAC | ATTTCTTGTA | GGCATCACA | TGAACAAAGA | 5700 |
| | TATATTTTCT | ATTATTTTAT | TATATGTGCA | CTTCAAGAG | TCACTGTTCAG | AGAAATAAAG | 5760 |
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Seq ID NO: C39 DNA Sequence
Nucleic Acid Accession #: NM_014373
Coding sequence: 322.1338

| | | | | | | | |
|----|-------------|-------------|------------|-------------|-------------|-------------|------|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | | |
| | GTGGCCTCGA | GGTGGTGGCA | GGGCCGCCCC | CTGCAGTCCG | GAGACGAACG | CACGGACCGG | 60 |
| 5 | GCCTCCGGAG | GCAGGTTCCG | CTGGAAGGAA | CCGCTCTCGC | TTCTCTCTAC | ACTTGCAGCA | 120 |
| | ATGTCTCCGA | GCTTACTCAC | ATAGCATATT | GGTATATCAA | AATGAAATGC | AAGGAACCAA | 180 |
| | AAATAACATA | ATTGAAGGCA | GTAAAGTGA | AATTAAATAG | GAAGATCATC | AGTCAGGAA | 240 |
| | GACCCACTGG | AGAGGACAGA | AAATGAAGCA | GTGTTTATC | ATGTGTATT | CAGCAGGCT | 300 |
| | TCTTGAAATT | TAACTAAAAA | TATGACTGCT | CTCTCTTCAG | AGAACTGCTC | TTTTCAGTAC | 360 |
| 10 | CAGTTACGTC | AAACAAACCA | GCCCTAGAC | GTTAACTATC | TGCTATTCTT | GATCATACTT | 420 |
| | GGGAAATAT | TATTAATAT | CCTTACACTA | GGAATGAGAA | GMAAAACAC | CTGTCAAAAT | 480 |
| | TTTATGGAAAT | ATTTTTCAT | TTCACTAGCA | TTGTTGATC | TTTACTTTT | GGTAAACATT | 540 |
| | TCCATTATAT | TGTATTTCAG | GGATTTTGT | CTTTTAAACA | TTAGGTTTAC | TAAATACCA | 600 |
| | ATCTGCCTAT | TTACTCAAAAT | TATTTCTCTT | ACTTATGGCT | TTTTCGATTA | TCCAGTTTTC | 660 |
| | CTGACAGCTT | GTATAGATTA | TTGCCGTAAT | TTCTCTAAAA | CAACCAAGCT | TTCAATTAAAG | 720 |
| 15 | TGTCAAAAT | TATTTTATTT | CTTTACAGTA | ATTTTAAATT | GGATTTTCAGT | CTTGTCTTAT | 780 |
| | GTTTTGGGAG | ACCCAGCCAT | CTACCAAGC | CTGAAGGCAC | AGAATGCTTA | TTCTCGTCAC | 840 |
| | TGTCTCTTCT | ATGTCAGCAT | TCAGAGTTAC | TGGCTGTCAT | TTTTTCAATG | GATGATTTTA | 900 |
| | TTTGTAGCTT | TCATAACCTG | TTGGGAAGAA | GTTACTACTT | TGGTACAGGC | TATCAGGATA | 960 |
| 20 | ACTTCTCTATA | TGATGAAGAC | TATCTTATAT | TTTCTTTT | CATCCCACTC | CAGTTATACT | 1020 |
| | GTGAGATCTA | AAAAAATATT | CTTATCCAAG | CTCATGCTCT | GTTTTCTCAG | TACCTGGTTA | 1080 |
| | CCATTGTGAT | TACTTCAGGT | AATCATGTTT | TTACTTAAAG | TTCAAGATTCC | AGCATATATT | 1140 |
| | GAGATGAATA | TTCCCTGGTT | ATACTTTGTC | AATAGTTTTC | TCATTGCTAC | AGTGTATTGG | 1200 |
| | TTTAATTGTC | ACAAGCTTAA | TTTAAAGAC | ATTGGATTAC | CTTTGGATCC | ATTGTCAAC | 1260 |
| 25 | TGGAAAGTCT | GCTTCATTCC | ACTTACAATT | CCTAATCTTG | AGCAAAATGA | AAAGCCCTATA | 1320 |
| | TCATAAATGA | TTTGTAAATA | TTATTAATTA | AAAGTTACAG | CTGTCTAAG | ATCATAATT | 1380 |
| | TATGAACAGA | AAGAACTCAG | GACATATTA | AAAATAAAT | GAACTAAAC | AACCTTTGCC | 1440 |
| | CCCTGACTGA | TAGCATTTCA | GAATGTGCT | TTTGAAGGCG | TATACCAGTT | ATTAATAGT | 1500 |
| | GTTTTATTTT | AAAAACAAAA | TAATTCCAAG | AAGTTTATAT | AGTTATTACAG | GGACACTATA | 1560 |
| 30 | TTACAAATAT | TACTTTGTTA | TTAACACAAA | AAGTGATTAAG | AGTTAACATT | TGGCTATACT | 1620 |
| | GTGTGTTGTG | TTACTCAAAA | AACTACTG | ATGCAAACTG | TTATGTAAAT | CTGAGATTTC | 1680 |
| | ACTGACAACT | TTAAGATATC | AACCTAAACA | TTTTTATTAA | ATGTTCAAAAT | GTAAGCAAGA | 1740 |
| | AAAAAAA | | | | | | 1749 |

Seq ID NO: C40 DNA Sequence
Nucleic Acid Accession #: BC012089
Coding sequence: 1..2571

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|----|------------|------------|-------------|-------------|-------------|-------------|------|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | | |
| 40 | ATGGCCCTCG | TACTCGGCTC | CTGTGCTG | CTGGGCTGT | GCGGGAATC | CTTTTCAGGA | 60 |
| | GGGCAGCCTT | CATCCACAGA | TGCTCTTAAG | GCTTGGAAAT | ATGAATTCGC | TGCAACAAAT | 120 |
| | TATGAGACCC | AAGACTCCCA | TAAAGCTGGA | CCCATTTGCA | TTCTCTTTGA | ACTAGTGCAT | 180 |
| | ATCTTTCTCT | ATGTGGTACA | GCCGCGTGAT | TTCCAGAGAG | ATACTTTGAG | AAAATTCCTA | 240 |
| 45 | CAGAAGGCAT | ATGATCCCAA | AAATGATTAT | GACAGAGATT | TCTACTATGA | AGCAGGGATT | 300 |
| | ATCTATGCT | GTGTCTGGG | GCCTGCTTT | ATTATTTCTGA | TGCTCTGCT | GGGTTATTC | 360 |
| | TTTGTATGT | GTCTGTGCTG | TAACAAATGT | GGTGGAGAAA | TGCAACAGCG | ACAGAAAGGA | 420 |
| | AATGGGCCCT | TCCTGAGGAA | ATGCTTTGCA | ATCTCCCTGT | TGGTGATTTG | TATAATAAT | 480 |
| | AGCATTTGCA | TCCTCTATGG | TTTGTGGCA | AATCACCCAG | TAAGAAACCC | GATCAAAAGG | 540 |
| 50 | AGTCGGAAAC | TGGCAGATAG | CAATTTCAAG | GACTTGCAG | CTCTCTTGAA | TGAAACTCCA | 600 |
| | GAGCAAACTA | AAATATATAT | GGCCAGTAC | AACACTACCA | AGGACAAGGC | GTTCAAGAT | 660 |
| | CTGAACAGTA | TCAATTCAGT | GCTAGGAGGC | GGAATTTCTG | ACCGACTGAG | ACCCACATC | 720 |
| | ATCCCTGTTC | TTGATGAGAT | TAACTCCATG | GCAACAGCGA | TCAAGGAGAC | CAAGAGGCG | 780 |
| | TTGGAGAACA | TGAACAGCAC | CTTGAAGAGC | TTGCACCAAC | AAAGTACACA | GCTTAGCAGC | 840 |
| 55 | AGTCTGACCA | GCGTGAAAC | TAGCTCTGCG | TGATCTCTCA | ATGACCTCT | GTGCTTGGTG | 900 |
| | CATCCATCAA | GCTAAACCTG | CAACAGCATC | AGATTGTCTC | TAAGCCAGCT | GAATAGCAAC | 960 |
| | CCCTGAAGTA | GGCAGCTTCC | ACCCGTGGAT | GCAGAACTTG | ACAAGCTTAA | TAACTTCTT | 1020 |
| | AGGACAGATT | TGGATGGCCT | GGTCCAACAG | GGCTATCAAT | CCCTTAATGA | TATACTGAC | 1080 |
| | AGAGTACAA | GCCAAACCA | GACTGTGCTA | GCAGGTATCA | AAAGGGTCTT | GAATTCCTAT | 1140 |
| 60 | GGTTCAGATA | TGCACATGAT | AACCTAGCGT | CTTCCATATC | AGGATATACT | CTCAGCATTC | 1200 |
| | TCGTGTTATG | TTAATAACAC | TGAAGATTAC | ATCCACAGAA | ATTTACCTAC | ATTGGAGAG | 1260 |
| | TATGATTCAT | ACTGTGGCT | GGTGGCCTG | GTCTCTGCT | CTCTGCTGAC | CCTCATCGTG | 1320 |
| | ATTTTITACT | ACCTGGGCTT | ACTGTGCGC | GTGTGCGCT | ATGACAGGCA | TGCCACCCCG | 1380 |
| | ACCACCCGAG | GCTGTGCTCT | CAACACCCGA | GGGTCTTCC | TCATGGTTGG | AGTTGGATTA | 1440 |
| 65 | AGTTTCTCT | TTGTCTGGAT | ATTGATGATC | ATTGTGGTTC | TTACCTTTGT | CTTTGGTGCA | 1500 |
| | AATGTGGAAA | AACGTATCTG | TGAACCTTAC | ACGAGCAAGG | AATTATTCCG | GGTTTGGAT | 1560 |
| | ACACCTACT | TACTAAATGA | AGACTGGGAA | TACTATCTCT | CTGGGAAGCT | ATTTAATAAA | 1620 |
| | TCAAAAATGA | AGCTCACTTT | TGAACAAGTT | TACAGTGACT | GCAAAAAAAA | TAGAGGCAT | 1680 |
| | TACGGCACTC | TTCACTTGCA | GAACAGCTTC | AATATCAGTG | AACATCTCAA | CATTATGAG | 1740 |
| 70 | CACTACTGGA | GCATAAGCAG | TGAATTGGAA | AGTCTGAAGG | TAAATCTTAA | TATCTTCTG | 1800 |
| | TTGGGTGCG | CAGGAAGAAA | AAACCTTCAG | GATTTTCTG | CTTGTGGAAAT | AGACAGAAATG | 1860 |
| | AATATGACA | GCTACTTGGC | TCAGACTGGT | AAATCCCCCG | CAGGAGTGAA | TCTTTTATCA | 1920 |
| | TTTCATATG | ATCTGAAGC | AAAAGCAAAC | AGTTTGCCTC | CAGGAAATTT | GAGGAATCTC | 1980 |
| | CTGAAAGAG | ATGCAAAAC | TATTAATAAC | ATTCAACAGC | AACGAGTCTT | TCTTATAGAA | 2040 |
| 75 | CAATCACTGA | GCATCTTATA | CCAAAGCGTC | AAAGATCTTC | AACGCACAGG | GAATGGATTG | 2100 |
| | TTGGAGAGAT | TCTAGATGAT | CTGAGTTTTC | CTCAGAACTT | CATCACAAC | | 2160 |
| | AAATCTTCT | CTGTATTAT | TGAGAAACT | AAGAAGTATG | GGAGAAACAT | AATAGGATAT | 2220 |
| | TTTGAACAT | ATCTGCAGTG | GATCGAGTTC | TCTATCAGTG | AGAAAGTGGC | ATCCTGCAAA | 2280 |
| | CCGTGGCCA | CGCTCTTAGA | TACTGCTGTT | GATGCTTTTC | TGTGTAGCTA | CATTATGAC | 2340 |
| 80 | CCCTTGAATT | TGTTTGTGTT | TGGCATAGGA | AAAGCTACTG | TATTTTACT | TCCGGCTCTA | 2400 |
| | ATTTTGGCG | TAAACTGGC | TAACTACTAT | CGTCAATG | ATTGAGAGGA | CGTGAAGAT | 2460 |
| | GATGTTGAAA | CTATACCCAT | GAAATATATG | GAAATGGTA | ATAATGGTAA | TCATAAAGAT | 2520 |
| | CATGTATATG | GTATTCACAA | TCCGTATTATG | ACAAGCCAT | CACAACATTG | A | 2571 |

Seq ID NO: C41 DNA Sequence

Seq ID NO: C42 DNA Sequence
Nucleic Acid Accession #: NM_001432.1
Coding sequence: 167..676

1223

| | | | | | | | |
|----|-------------|------------|------------|-------------|-------------|------------|------|
| | CTCATCTACC | AGATTCTGCC | TATGTAAAT | GAATTGAAA | ACAATTTCT | GTAATCTTT | 1440 |
| | ATTTAAGTAG | TGGGCATTT | ATAGCTTCAC | AATGTTCTT | TTTGTATAT | TACAACATTT | 1500 |
| | ATGTGAGGTA | ATTATTGCTC | AACAGACAAT | TAGAAAAAG | TCCACACTTG | AAGCCTAAAT | 1560 |
| 5 | TTGTGCTTTT | TAAGAATATT | TTTAGACTAT | TTCTTTTAT | AGGGGCTTTG | CTGAATCTTA | 1620 |
| | ACATTAAATC | ACAGCCCAAA | ATTGTATGGA | CTAATTATTA | TTTAAATAA | TATGAAGACA | 1680 |
| | ATAATTCTAC | ATGTTGTCTT | AAGATGGAAA | TACAGTTATT | TCATCTTTTA | TTCAAGGAAG | 1740 |
| | TTTTAACTTT | AATACAGCTC | AGTAAATGGC | TTCTTCTAGA | ATGTAAAGTT | ATGTATTTAA | 1800 |
| | AGTTGTATCT | TGACACAGGA | AATGGGAAAA | AACITAAAAA | TTAATATGGT | GTATTTTCTC | 1860 |
| 10 | AAATCAAAAA | TCTCAATTGA | AAGCTTTTAA | AATGTAGAAA | CTTAAACACA | CCTTCTCTTG | 1920 |
| | GAGGCTGAGA | TGAAAACATG | GGCTCATTTT | CCTGACATTT | GTTTATTTT | TGGAAGAGAC | 1980 |
| | AAAGATTTCI | TCTGCACTCT | GAGCCCATAG | GTCTCAGAGA | GTTAATAGGA | GTATTTTGTG | 2040 |
| | GCTATTGTCAT | AAGGAGCCAC | TGCTGCCACC | ACTTTTGGAT | TTTATGGGAG | GCTCCTTCAT | 2100 |
| | CGAATGTCAA | ACCTTTGAGT | AGAGTCTCCC | TGGATCACAT | ACCAGGTCAG | GGAGGATCTG | 2160 |
| 15 | TTCTTCTCT | ACGTTTATCC | TGGCATGTGC | TAGGGTAAAC | GAAGGCATAA | TAAGCCATGS | 2220 |
| | CTGACCTCTG | GACGACCTAG | TGCCAGGACT | TGTCCTCCATG | TGTATCCATG | CATTATATAC | 2280 |
| | CCTGGTGCAA | TCACACCACT | GTCTCTTAAA | GTCTCTGGCC | TGGCCCTTAC | TATTAGGAAA | 2340 |
| | ATAAACGAGC | AAAAACAGT | AAATATATAT | GGTCTTATAC | ATATTGTATA | TATATTCATA | 2400 |
| | TACAAACATG | TATGTATACA | TGACCTTAAT | GGATCATAGA | ATTGCACTCA | TTTGGTGTCT | 2460 |
| 20 | TGCTAACCAT | TTATATAAAA | CTTAAAAACA | AGAGAAAAGA | AAAATCAATT | AGATCTAAAC | 2520 |
| | AGTTATTTCI | GTTCCTCTAT | TAATATAGCT | GAAGTCAAAA | TATGTAAAG | CACATTTTAA | 2580 |
| | ATACTCTACT | TACAGTTGGC | CCTCTGTGGT | TAGTTCCACA | TCTGTGGATT | CAACCAACCA | 2640 |
| | AGGACGGAAC | ATGCTTAAAA | AATAATACAA | CAACAACAAA | AAATCACTTA | TAACAACAT | 2700 |
| | TTACTTTTCT | TTTCTTCTTT | TTGAGATGGA | GTCTCTCTCT | GTTCCTCCAG | TTGAGTGTCA | 2760 |
| 25 | GTGGCACGAT | CTCGGCTCAC | TGCAACCTCA | CCTCCCGGGT | TCAAGAGATC | CTCCTGCCTC | 2820 |
| | AGCCTCTCTG | GACGCTGGGA | CTACAGGCGC | ATGCCACCAT | GCCAGCTTAA | TTTGTGTATT | 2880 |
| | TTTAGTAGAG | GCGGGGTTTC | ACCATGTTGG | CCAGGATGGT | CTCAATCTCC | TAACCTTGAG | 2940 |
| | ATCCACCTCC | CAAGCTGCTC | CAAACTGCTG | GGATTACAGG | CGTGAAGCCAC | CGCAGCTGAG | 3000 |
| | ATTTACATTA | GGTATTACAA | GTATGTAAA | GATGATTTAA | GTATACAGGA | GGATGTGAAT | 3060 |
| 30 | AGSTTATATG | CAAGCACTAT | GCCTTTTAT | ATAAGTGACT | TGAACATCTG | TGCCCGATT | 3120 |
| | TAGTATGTGC | AGGGGGGCGA | TCTGGGAATC | AGTCCCTGT | GGATACCAAG | GTACAACTGT | 3180 |
| | ATTTATTAAAC | GCTTACTAGA | TGTGAGGAGA | GTCTGAATAT | TTTCAGTGAT | CTTGGCTGT | 3240 |
| | TCAAAAAAAT | CTATTGACTT | TTCAATAAAT | CAGCTGCAAT | OCATTTATTT | CATTTACAAA | 3300 |
| | AGATTATTGT | TAGCCCTCTC | AATCTTGGTT | TTTCAGTTGA | TCCTTAAGCAT | GTCAATTCAT | 3360 |
| 35 | AAAAACAAGT | CATTTTGTGA | TTTTTCATCT | TTAAGAAATG | TTAAAAAAGC | TAATCCCTAA | 3420 |
| | ATAGCTTAGA | TCCTTGTAAA | TGCATATTAA | ATAATAAAGT | ATGACCCACA | TTACTTTTAA | 3480 |
| | TGGGTGAAAA | TACACAGAAA | ATAATAGTTT | TAGTGAGGAT | GGTGCTGAGT | AAACATAAAA | 3540 |
| | ACTGATTTTC | TCTCAGCTGA | TGTGCTCTGT | ACACAGTGGG | AAGATTTTAG | TTCAACCTTA | 3600 |
| | GTCTAATCC | CCATTTTAC | AGATTCTCA | CTATATATAT | TTCLAGAAAG | GGCTATGCAT | 3660 |
| 40 | ATTCATGTA | TGGAAGACCA | AAGCAACCC | AAATGCATAA | ATGCATAAAT | TATGGTCTTC | 3720 |
| | AACCAAGGCC | ACATAATAAC | CCAGTTAACT | TACTCTTTAA | CCAGGAATAT | TAAGTTCTAT | 3780 |
| | AACCTAGTCT | CAAGGTTTAA | OCCTAAAAAT | AAGATTTCTT | TAACTTTAAC | CTTAAATTTG | 3840 |
| | ATATTATATT | AAACATACAT | AATCAATGT | AACTCCACTG | TTCTCTGAAA | TATTTTGTGC | 3900 |
| | TCTAATCTCT | CTGCCGAAAG | TCAAAGTGAT | GGGAGAAATG | GTATACTGAT | ATGACTACGT | 3960 |
| 45 | CTTAAGTCAG | ATTTTATATT | ATGAGTCTTT | GAGACTAAAT | TCAATCACCA | CCAGGTATCA | 4020 |
| | AATCAACTTT | ATATATGATT | CTAGTGCTCG | ACTTTTGTTA | AATTCAGTAA | GAACATCTTA | 4080 |
| | TGCAGTTTTT | AAAAACCTGT | ATCTGACCCA | CTTTGTAAAT | TTTGCTCCAA | TATCCATTCT | 4140 |
| | GTAGACTTTT | GAAAAAAG | TTTTTAATTT | GATGCCCAAT | ATATTCTGAC | CGTTAAAAAA | 4200 |
| | TTCTGTGTTA | TATGGGAGAA | GGGGAGATTA | TGACTGTGAC | AAACAGTATT | TCTGGTGTAT | 4260 |
| 50 | ATTTTAATGT | TTTTAAAAAG | AGTAATTTCA | TTTAAATATC | TGTTATTCAA | ATTTGATGAT | 4320 |
| | GTAAAAATGA | ATATAATGTA | TTTTCTTTTT | ATTTTGCACT | CTGTAATTTB | ACTTTTAAAG | 4380 |
| | TTTGAAGAGC | CATTTTGTGA | AACGGTTTTT | ATTAAGATG | CTATGGAAAC | TAAAGTTGTA | 4440 |
| | TTGCATGCAA | TTTAAAGTAA | CTTATTTGAC | TATGAATATT | ATCGGATTAC | TGAATTTGAT | 4500 |
| | CAATTGTGTT | GTGTTCAATA | TCAGCTTTGA | TAAETGTGTA | CCTTAAGATA | TTGAAGGAGA | 4560 |
| 55 | AAATAGATAA | TTTACAAGAT | ATTATTAATT | TTTATTTATT | TTTCTTGGGA | ATTGAATAAA | 4620 |
| | ATTGAATATA | ATAAAAATGC | ATTGAACATC | TTGCATTCAA | AATCTTCACT | GAC | 4673 |

Seq ID NO: C43 DNA Sequence

Nucleic Acid Accession #: AF011468.1

Coding sequence: 257..1468

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| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 65 | GGGAAGACTTG | GGTCTCTGGG | TGCGAGGTGG | GAGCCGACBG | GTGGGTAGAC | CGTGGGGGAT | 60 |
| | ATCTCAGTGG | CGGACGAGGA | CGGCGGGGAC | AAGGGGGGGC | TGGTCGGAGT | GGCGGAGCGT | 120 |
| | CAAGTCCCTC | GTCCGTTTCT | CCGTCCCTGA | GTGTCTCTGG | CGCTGCCCTG | TGCCCGCCCA | 180 |
| | GCGCCCTTGC | ATCCGCTCCT | GGGCACCGAG | GCGCCCTGTA | GGATACGCT | TGTTACTTAT | 240 |
| | TACAGCTAGA | GGCATCATGG | ACCGATCTAA | AGAAACTGCG | ATTTCAAGAC | CTGTTAAGGC | 300 |
| 70 | TACAGCTCCA | GTGGAGGTC | CAAAACGTGT | TCTCTGACT | CAGCAATTC | CTTGTACAGAA | 360 |
| | TCCATTACCT | GTAAATAGTG | GCCAGGCTCA | GCGGGTCTTG | TGTCCTTCAA | ATTTCTTCCA | 420 |
| | GCGGTCTCT | TGCAAGCAC | AAAGGCTTGT | CTCCAGTCAC | AAGCCGTTTC | AGAATCAGAA | 480 |
| | GCAGAGCAA | TGCAAGCAA | CCAGTGTAAC | TCATCTGTCT | TCCAGGCCAC | TGAATAACAC | 540 |
| | CCAAAGAGGC | AAGCAGCCCC | TGCCATCGGC | ACCTGAAAT | AATCTGAGG | AGGAACCTGGC | 600 |
| 75 | ATCAAAACAG | AAAAATGAAG | AATCAAAAA | GAGGCACTGG | GCTTTGGAG | ACTTTGAAAT | 660 |
| | TGGTCCCTCT | CTGGGTAAAG | GAAAGTTTGG | TAAATGTTAT | TTGGCAGAG | AAAAGCAAG | 720 |
| | CAAGTTTATT | CTGGCTCTTA | AAGTGTATT | TAAAGCTCAG | CTGGAGAAAG | CCGGAGTGGG | 780 |
| | GCATCAGCTC | AGACAGAGA | TAGAAATACA | GTCCACCTT | CGGCATCTTA | ATATTCTTAG | 840 |
| | ACTGTATGTT | TATTTCCATG | ATGTACACAG | AGTCTACCTA | ATTCGTGAAT | ATGCACCACT | 900 |
| 80 | TGGAACAGTT | TATAGAGAAC | TTCAAGAACT | TTCAAGTTT | GATGAGCAGA | GAAGTGTCTAC | 960 |
| | TTATATAACA | GAATTGGCAA | ATGCCCTGTC | TTACTGTCTAT | TCAAGAGAG | TTATTCATAG | 1020 |
| | AGACATTAA | CCACAGAACT | TACTTCTTGG | ATCAGCTGGA | GAGCTTAAAA | TTGCAGATTT | 1080 |
| | TGGGTGCTGA | GTACATGCTC | CATCTTCCAG | GAGGACCACT | CTCTGTGGCA | CCCTGGACTA | 1140 |
| | CTTGCCTCCT | GAAATGATTG | AAGGTGGGAT | GCAATGATGAG | AAGGTGGATC | TCTGGAGCCT | 1200 |
| | TGGAGTTCTT | TGCTATGAAT | TTTAGTTGG | GAAGCCTCCT | TTTGAGGCAA | ACACATACCA | 1260 |

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AGAGACCTAC AAAAGAATAT CACGGGTTGA ATTACATTC CCTGACTTTG TAACAGAGGG 1320
AGCCAGGGAC CTCATTTCAG GACTGTTGAA GCATAATCCC AGCCAGAGGC CAATGCTCAG 1380
AGAAGTACTT GAACACCCCT GGATCACAGC AAATTCATCA AAACCATCAA ATTGCCAAAA 1440
CAAAGAATCA GCTAGCAAAAC AGTCTTAGGA ATCTGTCAGG GGGAGAAATC CTTGAGCCAG 1500
GGCTGCCATA TAACCTGACA GGAACATGCT ACTGAGTTT ATTTTACCAT TGAAGTCTGC 1560
CCTCAATCTA GAACTGACA CAAAGAAATAT TTGTTTACT CAGCAGGTGT GCCTAACCT 1620
CCCTATTGAG AAAGCTCCAC ATCAATAAAC ATGACACTCT GAAGTGAAAG TAGCCACGAG 1680
AATTGTGCTA CTTATCTGGG TTCATAATCT GGAGGCAAGG TCGACTGCA GCCGCCCGT 1740
CAGCCTGTGC TAGGATCGGT GTCTTCACAG GAGGCAAAATC CAGAGCCTGG CTGTGGGGAA 1800
AGTGACCACT TGGCCTGAC CCGATCAGT TAAGGAGCTG TGCAATAACC TTCCTAGTAC 1860
CTGAGTGAGT GTGTAACTTA TTGGGTTGGC GAAGCCTGGT AAAGCTGTTG GAATGAGTAT 1920
GTGATTCTTT TTAAGTATGA AAATAAAGAT ATATGTACAG ACTTGTATTT TTTCTCTGGT 1980
GGCATTCCCT TAGGAATGCT GTGTGTCTGT CCGGCCACCC GGTAGGCTG ATTGGGTTT 2040
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ACCTCCACTT AGGGATTGTC TTGGGATACA GAAGAGGCCA TGTGTCTCAG AGCTGTTAAG 2160
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Seq ID NO: C44 DNA Sequence
Nucleic Acid Accession #: NM_013372
Coding sequence: 63..617

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70
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80

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1 11 21 31 41 51
GGGGCCGCAC TCAGCGCCAC GCGTCGAAAG CGCAGGCCCC GAGGACCCGC GGCAGTACA 60
GTATGAGCCG CACAGCCTAC ACGGTGGGAG CCTGCTTCT CCTCTTGGGG ACCCTGCTGC 120
CGGTGCTGA AGGGAATAAG AAAGGGTCCC AAGGTGCCAT CCCCCCGCCA GACAAGGCC 180
AGCACAAATGA CTCAGAGCAG ACTCAGTGGC CCGAGCAGCC TGGCTCCAGG AACCGGGGC 240
GGGGCCAAAG GCGGGGCACT GCGATGCCCC GGGAGGAGGT GCTGGAGTCC AGCCAGAGG 300
CCCTGCATGT GACGAGGCGC AAATACCTGA AGCBAAGCTG GTGCAAAACC CAGCCBCTTA 360
AGCAGACCAT CCAAGAGGAA GGCCTGCAACA GTCCACCAT CATCAACCCG TCTGTATACG 420
GCCAGTGCAC CTCTTTCTAC ATCCCCAGGC ACATCCGGAA GGAGGAAGGT TCCTTTCACT 480
CCTGCTCCTT CTGCAAGCCC AAGAAATTCA CTACCATGAT GGTCACTC ACCTGCCCTG 540
AACTACAGCC ACCCTACCAAG AAGAGAGAG TCAACCTGT GAAGCAGTGT CTTGTCATAT 600
CCATCGATTG GCAATTAAGCC AAATCCAGGT GCACCCAGCA TGTCTTAGGA ATGCAGCCOC 660
AGGAAGTCCC AGACCTAAA CAAACAGATT CTACTTGGC TTAACCTAG AGGCCAGAA 720
AACCCCGAGC TGCCTCTGG CAGGAGCCTG CTTGTGCGTA GTTCTGTGTC ATGAGTGTGG 780
ATGGGTGCCT GTGGGTGTTT TTAGACACCA GAGAAACAC AGTCTCTGCT AGAGAGCACT 840
CCCTATTTTG TAAACATATC TGCTTTAATG GGGATGTACC AGAAACCCAC CTCACCCCG 900
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GACCTGTTT AGTGTCTGAT TCGACATGGA AAAGTCTTT TAACCTGTGC TTGCATCTC 1080
CTTCTCTCT CTTCTCTACA ATCCATCTCT TCTTAAGTTG ATAGTGACTA TGTCACTTA 1140
ATCTCTTGT TGCCAAAGGT CCTAAATTA TCACTTAAC CATGATGCA ATGTTTTTCA 1200
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ACCACTCTTA TGTTCGAGC CAAAGCAAGT AGCTAAACCA AACCACTCC TCTGCTTGT 1560
CCCTCAGGTG GAAAGAGAG GTAGTTTAGA ACTCTGCA TAGGGGTGG AATTAATCAA 1620
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TCCATTCAC TATTTCCAT AATGCTTCTG AGAGCCACTA ACTTGATGTA TAAAGATCT 1740
GCTCTGCTG AGTGTACCTG ACAGTAAGTC TAAAGATGAR AGAGTTTAGG GACTACTCTG 1800
TTTTAGCAAG AATATATCTG GGGTCTTTT TGTTTTAACT ATTGTCAAGG GATTGGGCTA 1860
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10 Seq ID NO: C45 DNA Sequence
Nucleic Acid Accession #: Eos sequence
Coding sequence: 200..2932

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CACTGACGGC CACGCTGGCT TCCTGGGAAA AATGATGGC ATCAAAACAA AAAAGAAGCT 300
CATTGTGAAT AAGAAAAAAC ATCTAGGCCC AGTCGAAGAA TATCAGCTGC TGCTTCAGGT 360
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70 Seq ID NO: C46 DNA Sequence
Nucleic Acid Accession #: NM_000584.1
Coding sequence: 75..374

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GAAACTTCAA GCRAATCTAC TTCAACACTT CATGTATTGT GTGGGTCTGT TGTAGGGTTG 480
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CATTGTACCA TGAATATACC AGAACATACT TATATGTAAA GTATTATTTA TTGAATCTA 600

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| 5 | CAAAAAACAA | CAATAAATTT | TTAAATATAA | GGATTTTCTT | AGATATTGCA | CGGGAGAATA | 660 |
| | TACAAATAGC | AAAATTGAGC | CAAGGGCCAA | GAGAATATCC | GAACCTTTAAT | TTCAAGGAAT | 720 |
| | GAATGGGTTT | GCTAGATGT | GATATTGTAA | GCATPCACATA | AAAATGATGG | GACAATAAAT | 780 |
| | TTTGCCATAA | AGTCAAATTT | AGCTGGAAAT | CCTGGATTPT | TTTCTGTTRA | ATCTGGCAAC | 840 |
| | CCTAGTCTGC | TAGCCAGGAT | CCACAAGTCC | TGTTCCTCCT | GTGCTTGGT | TTCTCCITTA | 900 |
| | TTTCTAAGTG | GAAAAAGTAT | TAGCCACCAT | CTTACCTCAC | AGTGATGTG | TGAGGACATG | 960 |
| | TGGAGCCACT | TTAAGTTT | TCATCATAAC | ATAAATTATT | TTCAAGTGA | ACTTATTAC | 1020 |
| | CTATTATATA | TTTATGTATT | TATTTAAGCA | TCAAATATTT | GTGCAAGAAT | TTGGAAAAAT | 1080 |
| 10 | AGAAAGATGAA | TCATTGATTG | AATAGTTATA | AAGATGTAT | AGTAAATTTA | TTTTATTTTA | 1140 |
| | GATATTAAAT | GATGTTTTAT | TAGATAAAT | TCAATCAGGG | TTTTAGATT | AAACAAAGAA | 1200 |
| | ACAAATGGGT | ACCCAGTTAA | ATTTTCATT | CAGATAAACA | ACAAATAATT | TTTTAGTATA | 1260 |
| | AGTACATTAT | TGTTATCTG | AAAGTTTAA | TGAACTAAC | AATCCTAGTT | TGATACTCC | 1320 |
| | AGTCTGTCA | TGCGCAGCTG | TGTTGGTAGT | GCTGTGTTGA | ATTACGGAAT | AATGAGTTAG | 1380 |
| 15 | AACATTTAAA | ACAGCCAAAA | CTCCACAGTC | AATATTAGTA | ATTCTTGCT | GGTTGAAACT | 1440 |
| | TGTTTATTAT | GTACAAATAG | ATTCTTATAA | TATTATTTAA | ATGACTGCAT | TTTTAAATAC | 1500 |
| | AAGGCTTTAT | ATTTTAACT | TTAAGATGTT | TTTATGTGCT | CTCCAAATTT | TTTTTACTGT | 1560 |
| | TTCTGATTGT | ATGGAAATAT | AAAAGTAAAT | ATGAAACATT | TAAATATATA | TTTGTGTGCA | 1620 |
| | AAGTAAAAAA | AAAAAAA | | | | | 1639 |

Seq ID NO: C47 DNA Sequence

Nucleic Acid Accession #: NM_005603.1

Coding sequence: 1..3756

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| 30 | GAACCCAGAAC | AAAACCGAGT | CAACAGGGAA | GCAGAGGAGA | ACCGGGAGCC | ATTCCAGAAAA | 180 |
| | GAATGTACAT | GGCAAGTCAA | AGCAAAACGAT | CGCAAGTACC | ACGAAACACC | TCATCTTATG | 240 |
| | AAACACAAAT | TCTTGTGTAT | TAAGGAGAGT | AAATATGCGA | ATAATGCAAT | TAAACATATC | 300 |
| | AAGTACACG | CATTACCTT | TATACCAATG | AATCTGTTT | AGCAGTTTAA | GAGAGCAGCC | 360 |
| | AATTTATATT | TCTGGGCTCT | TCTTATCTTA | CAGGCAGTTC | CTCAAATCTC | TACCTGGCT | 420 |
| 35 | TGGTACACCA | CAGTAGTGCC | CCTGCTGTG | GTGCTGGGCG | TCAGTGCAT | CAGAGACCTG | 480 |
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| | ATTATAGGATG | GCAGGTTCAA | AGTTGCTAAG | TGGAAAGAAA | TTCAAGTTGG | AGACGTCATT | 600 |
| | CGCTGAGAAA | AAAATGATTT | TGTTCCAGCT | GACATCTCC | TGCTGTCTAG | CTCTGAGCCT | 660 |
| | AACAGGCTCT | GCTATGTGGA | AACAGCAGAA | CTGGACGGAG | AAACCAATTT | AAAATTTAAG | 720 |
| 40 | ATGTCACCTG | AAATACAGAA | CCAGTACCTC | CAAGAGAAAG | ATACATTGGC | TACATTGAT | 780 |
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| | AAGAATAGTG | GGAAACCCAG | ATTTAAAGAA | ACTAAATATG | ATTACTTGAT | GAATCATATG | 1020 |
| 45 | GTTTACACGA | TCTTTGTTGT | TCTTATCTG | CTTCTGCTG | GTCTTGCCAT | CGGCCATGCT | 1080 |
| | TATTGGGAGG | CACAGGTGGG | CAATTCCTCT | TGCTACCTCT | ATGATGGAGA | AGACATATCA | 1140 |
| | CCCTCCTACC | GTGATTTCT | CATTTCTG | GGCTATATCA | TTGTTCTCAA | CACCATGGTA | 1200 |
| | CCCATCTCTC | TCTATGTCTG | CGTGGAGAGT | ATTGCTCTG | GACAGAGTCA | CTTCATCAAC | 1260 |
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| 50 | CTCAATGAAC | AGCTCGGGCA | GATCCATTAT | ATCTTCTCTG | ATAAGACGGG | GACACTCACA | 1380 |
| | CAAAATATCA | TGACCTTTAA | AAAGTCTGCT | ATCAACGGGC | AGATATATGG | GGACCATCGG | 1440 |
| | GATGCTCTCT | AACCAACCCA | CAACAAATA | GAGCAAGTTG | ATTTTAGCTG | GAATACATAT | 1500 |
| | GCTGATGGGA | AGCTTGCAIT | TTATGACCA | TATCTTATG | AGCAAAATCCA | GTCAAGGAAA | 1560 |
| | GAGCCAGAA | TACACAGATT | CTTCTCTCTG | CTCGCAGTTT | GCCACACAGT | CATGGTGGAT | 1620 |
| 55 | AGGACTGATG | GTCACTCAA | CTACCAAGCA | GGCTCTCCG | ATGAAGGTGC | CCTGTAAAT | 1680 |
| | GCTGCAAGCA | ACTTGTGCTT | TGCTTCTCT | GCCAGGACCC | AGAACAACAT | CACCATCATG | 1740 |
| | GAATGGGCA | CTGAAGAGAC | TTACAAATTT | CTTGCCATTT | TGGACTTCAA | CAGTGACCGG | 1800 |
| | AAGCGAATGT | CTATCATTTG | AAGAACCCCA | GAAGGCAATA | TCAAGCTTTA | CTGTAAAGGT | 1860 |
| | GCTGACACTG | TTATTTATGA | ACGGTTACAT | CGAATGAATC | CTACTAAGCA | AGAAACACAG | 1920 |
| 60 | GATGCCCTGG | ATATCTTTGC | AAATGAAACT | CTTAGAACCC | TATGCCCTTG | CTACAGGAAA | 1980 |
| | ATTGAAGAAA | AAGAAATTAC | AGAATGGAA | AAAAAGTTTA | TGGCTGCCAG | TGTGGCTCTC | 2040 |
| | ACCAACCCGG | ACGAGCTCT | GGATAAAGTA | TATGAGGAGA | TTGAAAGAGA | CTTANTCTCT | 2100 |
| | CTGGGAGCTA | CAGCTATTGA | AGACAAGCTA | CAGGATGGAG | TTCCAGAAAC | CATTTCAAAA | 2160 |
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| 65 | AATATAGGAT | TGCTTGTGTA | ACTTCTGACT | GAAGACACCA | CCATCTGCTA | TGGGGAGGAT | 2280 |
| | ATTAATCTCT | TTCTTCATGC | AAGGATGGAA | AACCAAGGGA | ATAGAGGTGG | CGTCTACGCA | 2340 |
| | AAGTTTGCAC | CTCCTGTGCA | GGAACTTTT | TTTCCACCCG | GTGGAAACCG | TGCTTAAATC | 2400 |
| | ATCACTGGTT | CTTGTTGAA | TGAATTTCT | CTCGAGAAAA | AGACCAAGAG | AAATAGATT | 2460 |
| | CTGAAGCTGA | AGTTCACAG | AACAGAAAG | GAAGACCGGA | TGCGGACCCA | AAGTAAAGG | 2520 |
| 70 | AGGCTAGAAG | CTAAGAAAGA | GCAGCGGCG | AAAACTTTG | TGGACCTGGC | CTCGAGTGC | 2580 |
| | AGCGCASTCA | TCTGCTGCG | CGTCAACCCC | AAGCAGAAAG | CCATGGTGGT | GGACCTGGTG | 2640 |
| | AAGAGGTACA | AGAAAGCCAT | CAAGCTGGCC | ATCGGAGATG | GGGCCAATGA | CGTGAACATG | 2700 |
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| | TGAGTGAAT | ATTCCTTTC | TCACTTCCGA | TATCTCCAGA | GGCTACTGCT | GGTGCATGGC | 2820 |
| 75 | CGATGGTCTT | ACATAAGGAT | GTGCAAGTTC | CTACGATACT | TCTTTTACAA | AACTTTTGCC | 2880 |
| | TTTACTTTGG | TCTTCTCTG | GTACTCCTTC | TTCAATGGCT | ACTCTGGCCA | GACTGCATAC | 2940 |
| | GAGGATTTGT | TCACTACCTT | CTCAACCTG | CTGTACACCA | GGCTGCCCTT | GCTCCTCATG | 3000 |
| | GGGCTGCTCG | ACCAAGGAT | GAGTGACAAA | CTGAGCCTCC | GATTCCTGG | GTTTACATA | 3060 |
| | GTGGGACAAA | GAGACTTACT | ATTCAACTAT | AAGAGATTCT | TTGZAAGCTT | GTGCTATGGG | 3120 |
| 80 | GTCTTACAT | CGATGATCTT | CTTCTTCATA | CCTCTTGGAG | CTTATCTGCA | AACCGTAGGG | 3180 |
| | CAGGATGGAG | AGGCACCTTC | CGACTACCG | TCTTTTGGCG | TCAACATGCT | CTCTGCTCTT | 3240 |
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| | TTTTCATTT | TTGGAGCAT | TGCACTTTAT | TTTGGCATCA | TGTTTGACTT | TCATAGTGCT | 3360 |
| | GGATATCATG | TTCTCTTTC | ATCTGCATTT | CAATTTACAG | GCACAGCTTC | AAACGCTCTG | 3420 |
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Seq ID NO: C48 DNA Sequence
 Nucleic Acid Accession #: XM_044533
 Coding sequence: 238..2751

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 GCTGGTGGCA AGGCCAGCTG GGGTGCAGAC AGGTCTACT GGAAGGAGTT CCTGGTGATG 2400
 TGCAAGCTCT TGTGCTGSC CGTGTCTGTC CAGTTTTAT TCTGTCTTA CCGGCACCGG 2460
 AACAGCATGA AAGTCTTCTT GAGGAGGGG GAATGTGCCA GCGTGCAACC CAAGACCTCG 2520
 CTGTGTGTG TGCOCCTGCA GACCGGCCCA CTCACCGGCC TAGGGGCCCC TAGCACCCCG 2580
 CTGATCACC GAGGTGAOCA GTCCCTGTCA GACAGCCCCC CGGGGTCCCG AGTCTTCACT 2640
 GAGTCAGAGA AGAGGCACT CAGCATCCAA GACAGCTTCG TGGAGGTATC CCCAGTGTG 2700
 CCGCGGCCCC GGTTCGCGCT TGGCTCGGAG ATCGGTGACT CTGTGCTGTG AGAGCTGACT 2760
 TCAGAGGAC GCTGCTCTG CTTCAGGGGC TGTGAATGCT CCGAGAGGGT CAACTGAGCC 2820
 TCCCTCCCG TCTGCTCTTC GTGGAACAG ACCGTGTGTC CCGGCCCTTG GAGGCTTGG 2880
 GCGCAGCTGG CTTGCTGCTC TCCAGTCAAG TAGCGAGCT CTACCAACC AGACACCCAA 2940
 ACAGCGTGG ACOCAGAGGT OCTGGCCAAA TATGGGGGCC TGCTAGGTT GGTGGAACAG 3000
 TGCTTCTTAT GTAACTGAG CCTTTTGTG AAAAAAAT TCCAATGTG AAAGTAGAAT 3060
 GAGAGGGAAG AGATAGCATG GCATGCAGCA CACACGCTG CTCCAGTTCA TGGCTCCCA 3120
 GGGGTGTCTG GATGCTATCC AAGTGGTTG TCTGAGACAG AGTTGGAAC OCTACCAAC 3180
 TGGCTCTCTC ACCTTCCACA TTATCCGCTT GCGACCGGCT GCGCTGTCTC ACTGCAGATT 3240
 CAGGACCTGA TTGGGCTGCG TGCGTCTGCT CTGCGAGTC AGCGAGGAT GTAGTTGTG 3300
 CTGCGTCTGT CCAACCACT CAGGAGCCAG AGGGCTAGGT TGGCACTGGG GCGCTCACCA 3360
 GGTCTTGGG TCGGACCCAA CTCTGAGACC TTTCCAGCTT GTATCAGGCT GTGGCCACAC 3420
 GAGAGGACAG CCGAGCTCA GAGAGATTT CBTGACAATG TACGCTTTC CBTGAGATT 3480
 CAGGAGAGAG ACTGTGCGCT GCTTCTCTC GTTGTGCTG GAGAACCGGT GTGCCCTTC 3540
 CCACTATATC CACCTCTGCT CCATCTTGA ACTCAACAC GAGGAATTA CTGACCCCTG 3600
 GTCTCTCTCC CAGTCCCGAG TTCACCTCC ATCCCTCACC TTCTTCACT CTAGGGATA 3660
 TCAACACTGC CAGACACAGG GCGCTTGAAT TTATGTGTT TTATATATT TTTAATAAG 3720
 ATGCATTTA TGTCTTTTT TAATAAAGTC TGAAGAATTA CTGTTT 3766

Seq ID NO: C49 DNA Sequence
 Nucleic Acid Accession #: NM_007019.1
 Coding sequence: 41..580

1 11 21 31 41 51
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 GGCACGAGCG AGTCTCTGTC TCTCTGCCAA GCGCGCCCGG ATGGCTTCCC AAACCGGGA 60

| | | | | | | | |
|----|--|-------------|-------------|------------|-------------|-------------|------|
| | CCCAGCCGCC | ACTAGCGTCG | CCGCCGCCCG | TAAAGGAGCT | GAGCCGAGCG | GGGGGCCGCC | 120 |
| | CCGGGGTCCG | GTGGGCAAAA | GGCTACAGCA | GGAGCTGATG | ACCCTCATGA | TGTCCTGGCGA | 180 |
| | TAAAGGGATT | TCTGCCCTCC | CTGAATCAGA | CAACCTTTTC | AAATGGGTAG | GGACCATCCA | 240 |
| 5 | TGGAGCAGCT | GGAACAGTAT | ATGAAGACCT | GAGGTATAAG | CTCTCGCTAG | AGTTCCCCAG | 300 |
| | TGGCTACCCCT | TACAAATGCG | CCACAGTGAA | GTTCTCTACG | CCCTGCTATC | ACCCCAACGT | 360 |
| | GGACACCCAG | GGTAACATAT | GCCTGGACAT | CCTGAAGGAA | AAGTGGTCTG | CCCTGTATGA | 420 |
| | TGTCAGGACC | ATTCTGCTCT | CCATCCAGAG | CCTTCTAGGA | GAACCCACAA | TTGATAGTCC | 480 |
| | CTTGAACACA | CATGCTGCGG | AGCTCTGGAA | AAACCCACAA | GCTTTTAAGA | AGTACCTGCA | 540 |
| 10 | AGAAACCTAC | TCAAAAGCAG | TCACCAGCCA | GGAGCCCTGA | CCCAGGCTGC | CCAGCCTGTC | 600 |
| | CTTGTGTCGT | CTTTTAAATT | TTCCCTTAGA | TGGTCTGTCC | TTTTTGTGAT | TCTGTATAG | 660 |
| | GACTCTTTAT | CTTGAGCTGT | GGTATTTTIG | TTTGTGTTTT | GTCTTTTAAA | TTAAGCCTCG | 720 |
| | GTTGAGCCCT | TGTATATTAA | ATAAATGCAT | TTTTGTCTCT | TTTTTAAAAA | AAAAAARAAA | 780 |
| | AAA | | | | | | 783 |
| 15 | Seq ID NO: C50 DNA Sequence Nucleic Acid Accession #: NM_014584.1 Coding sequence: 227..1633 | | | | | | |
| 20 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | GCACAGAGCC | CGGGCTGCCG | GGCGGGCCCG | CGGGGCAAGT | CCACAGGCTG | GGTCGCBAGG | 60 |
| | TGGCGATCGC | TGAGAGGCAG | GAGGGCCGAG | GCGGGCCCTG | GAGGCGGCCG | GGAGGTGGGG | 120 |
| | CGCCGCTGGG | CGCGGCCCGC | ACGGGCTTCA | TCTGAGGGCG | CACGGCCCGC | GACCGAGCGT | 180 |
| 25 | CGGACTGGG | CTCCCAAGCG | TGGGGCGACA | AGCTGCCGGA | GCTGCAATGG | GCCGCGGCTG | 240 |
| | GGGATTCCTG | TTTGGCTCC | TGGGGCCCGT | GTGGCTGCTC | AGCTCGGGCC | ACGGAGAGGA | 300 |
| | GCAGCCCGG | GAGACAGCGG | CACAGAGGTG | CTTCTGCCAG | GTTAGTGGTT | ACTTGGATGA | 360 |
| | TTGTACCTGT | GATGTTGAAA | CCATTGATAG | ATTTAATAAC | TACAGGCTTT | TCCCAAGACT | 420 |
| | ACAAAACCTT | CTTGAAGATG | ACTACTTTAG | GTATTACAAG | GTAAACCTGA | AGAGGCCCTG | 480 |
| 30 | TCCTTTCTGG | AATGACATCA | GCCAGTGTGG | AAGAAGGGAC | TGTGCTGTCA | AACCATGTCA | 540 |
| | ATCTGATGAA | GTTCCGTGAT | GAATTAATC | TGCGAGCTAC | AAGTATTCTG | AAGAAGCCAA | 600 |
| | TAATCTCAT | GAAGAATGTG | AACAAGCTGA | ACGACTTGG | CGAGTGGATG | AATCTCTGAG | 660 |
| | TGAGGAAACA | CAGAAGGCTG | TTCTTCAGTG | GACCAAGCAT | GATGATTCCT | CAGATAACTT | 720 |
| | CTGTGAAGCT | GATGACATTC | AGTCCCTGGA | AGCTGAATAT | GTAGATTGCT | TTCTTAATCC | 780 |
| 35 | TGAGCGCTAC | ACTGGTTTACA | AGGGACCCAGA | TGCTTGGAAA | ATATGGAATG | TCATCTACGA | 840 |
| | AGAAAACCTG | TTTAAGCCAC | AGACAATTA | AAGACCTTTA | AATCCTTTGG | CTTCTGGTCA | 900 |
| | AGGACACAG | GAAGAGAAACA | CTTTTACAG | TGGCTAGAAA | GGTCTCTGTT | TAGAAAAAG | 960 |
| | AGCATTTCTAC | AGACTTATAT | CTGGCTTACA | TGCAAGCATT | AATGTGCATT | TGAGTGCAG | 1020 |
| | ATATCTTTTA | CAGAGAGCCT | GGTTAGAAAA | GAAATGGGGA | CACAACATTA | CAGAAATTTCA | 1080 |
| 40 | ACAGCGAATT | AATGCAATTT | TGACTGAAGG | AGAAGGTCCA | AGAAGGCTTA | AGAAGTTGTA | 1140 |
| | TTTTCTCTAC | TTAATAGAAC | TAAGGGCTTT | ATCCAAGGTG | TTACCATTCT | TGAGCGGCC | 1200 |
| | AGATTTTCAA | CTCTTACTCG | GAAATAAAT | TCAGGATGAG | GAAAACAAAA | TGTTACTTCT | 1260 |
| | GGAAATACCT | CATGAATCA | AGTCATTTC | TTTGCAATTT | GATGAGAATT | CATTTTTCG | 1320 |
| | TGGGATATAA | AAAGAAGCAG | ACAAACTAAA | GGAGGACTTT | CGACTGCATT | TTAGAAATAT | 1380 |
| 45 | TTCAAGAACT | CAATGATTTG | TTGGTTGTTT | TAAATGTGCT | CTGTGGGGAA | AGCTTCAGAC | 1440 |
| | TCAGGGTTTG | GGCACTGCTC | TGAAGATCTT | ATTTCTGAG | AAATTGATAG | CAATATGCC | 1500 |
| | AGAAAGTGG | CCTAGTTATG | AATTCATCT | AACCAGACAA | GAAATAGTAT | CATTATTCAA | 1560 |
| | CGCATTTGGA | AGAAATTTCTA | CAAGTGTGAA | AGAAATAGAA | AACCTCAGGA | ACTTGTGTACA | 1620 |
| | GAATATTGAT | TAAAGAAAAA | AAGCTGATAT | GTGCTGTGTT | CTGCAAAATG | GAGGCGAAG | 1680 |
| 50 | AGTGGAAATT | CAATCAAAAG | CATAATAGCA | ATGACAGCTT | TAAAGCCAAAC | ATTTTATATA | 1740 |
| | AAGTTGCTTT | TGTAAGGGAG | AATTATATTG | TTTTAAGTAA | ACACATTTT | AAAAATTTG | 1800 |
| | TTAAGTCTAT | GTATAATACT | ACTGTGAGTA | AAAGTAATAC | TTTAATTAATG | TGTTACAAAT | 1860 |
| | TTTAAAGTTT | AATATTGAAT | AAAAGGAGGA | TTATCAAAAT | CATATATGAT | AAANGTGAAT | 1920 |
| | GTCTTAAGTC | TCTCAAACTA | CGCTTTTATG | TAATAATATG | TAATATAAAT | AAAACTATGG | 1980 |
| 55 | TAAAGTGTAC | AAGCAATTTA | TAGGAAATG | CTAAGGAGGC | CTCATAAATG | ACCCATAATT | 2040 |
| | ACCAAGCTAG | AATTTTTCAG | TACATTTAGG | GTTCCTGGAT | TTAGCAAAAT | AAAAATAAGA | 2100 |
| | TGCCCCAGTT | AGATTGGAAT | TTCAGATAAA | CAATTAGTTT | TTTAATATTT | TACATGGAAT | 2160 |
| | ATTTGGAAAA | TACTTATACT | AAAAAATTAT | TGTGTTGAAA | TTCACTTTA | ACTGGGAGTC | 2220 |
| | TGTATTTTAT | TCTGGCAATC | CTAAATATCA | TTGGTATGAA | ACAAATCATT | TTTAGAAGTA | 2280 |
| 60 | TATTGCTATT | TTGATTGGGT | TGTTTTTGTG | TGTAGAAACG | TACAATAACA | ACTCAAAGGC | 2340 |
| | ACAGGAGATT | TCTAAACATT | GTGAAAGATT | GAATAGATTA | TATATTTATT | CTCATAATAC | 2400 |
| | TTTCACTAAT | ACTAAATAAA | ATTTGGGAAA | CACCTTTTAT | TTTTATATTA | TTTCCAAATT | 2460 |
| | ACAGAAAAGT | TTCAAAATAA | GTACAAAGAG | CTCTCTTACC | CAGATTCACT | AATTGTTCAI | 2520 |
| | ACGTGCTTTA | TCTTTCAATG | TTTCTCTGTA | CACACACACA | CACACACAAA | TTTTTCTCTA | 2580 |
| 65 | ATCATTTGAA | AGTCAATTTAT | AGGCATCATG | CCCTTAAAC | CCTAAATACT | TCAGTGTGTA | 2640 |
| | ATACTGAATA | ATTACTAAAA | ATGATTTTCT | CAGAAAAAAA | AACCTCCACA | ATTCTGGAAC | 2700 |
| | TATAATACIG | TAGCCCTTAG | AATAAATAAT | ACTTTCAAGT | TCCAACTCAA | AGTTCCTTTT | 2760 |
| | GAGTTTTGTT | CCCGGTTTTA | TGCTTGATGT | GTATAGTAAT | AGGGTAGGCT | ATTATTTTAA | 2820 |
| | TTAAAAATTT | TTTTAGAGAC | AAGGTTTTCG | TGTTTTCCTC | AAGCTGGAAC | TTGACGAGCT | 2880 |
| 70 | GGGCTGAAGT | GATCTTCCCA | CCTCAGCCTC | CCAAGTAGCT | GGGAATACAG | GTGCTGCGCA | 2940 |
| | CCATACCCAG | TTTCATTTT | GTTTTTTATA | CCCAAGTTTC | ATTTCCTTTG | TCTCCCTAAA | 3000 |
| | ACTGAACGTG | AATTTTGGGA | GGTTTTCATT | AGTGGAGGCT | CTTCATTTAT | AAAGCTATTT | 3060 |
| | GAAGGGGTTT | AGGAATTTAT | ATCACATGGT | AATTGTAGAG | AAAAAGAAGC | TATATACCTC | 3120 |
| | AAAAATGTCG | CCTCTTTTACA | TATGTCTTAT | CAGGTATAAC | ATGTTGAAAT | GTCAATATAG | 3180 |
| 75 | TAGTAAAGTG | GGGTTTATTT | ATATAGTGGT | TAAAGAAATG | CAGTTTACAC | TGCTGTATAC | 3240 |
| | TTCTTCTTCT | GTGTCCTTAA | GGCCTGGTAC | AGTGCCAGGC | ACATACCTGG | TATCCAATAA | 3300 |
| | ATATTTGTTG | GATGAAAAAA | AAAAAARAAA | AAAA | | | 3334 |
| 80 | Seq ID NO: C51 DNA Sequence Nucleic Acid Accession #: NM_002888.1 Coding sequence: 37..723 | | | | | | |
| | 1 | 11 | 21 | 31 | 41 | 51 | |

5 CCAAGTCGCG GGTGCGGAGC CAACTTTCTT GCGTCCATGC AGCCCCGCGG GCAACGGCTG 60
 CCGCTCCCTT GGTCCGGGCG CAGGGGCGCG CCCCCACCG CCCCCTGCTT CCGCTGCTG 120
 CTGTTGCTCG CCCCGGTGCG GCGCCCGCGG GGGTCCGGGG GCGCCBACBA CCTTGGGCAG 180
 CCTCAGGATG CTGGGGTCCC GCGCAGGCTC CTGCAGCAGA AGCGCGCGCG GCGCTTCC 240
 TTCTTCAACT TCCGGTCCCG CTGCCCAGC GCGCTGCGAG TGCTGGCCGA GGTGCAGGAG 300
 GGCCCGCGGT GGATTAATCC AAAAGAGGGA TGTAAGTTC ACGTGGCTCT CAGCACAGAG 360
 CGCTACAACC CAGAGTCTTT ACTTCAGGAA GGTGAGGGAC GTTTGGGGAA ATGTTCTGCT 420
 CGAGTGTGTT TCAAGAATCA GAAACCCAGA CCAACCATCA ATGTAACCTG TACACGGCTC 480
 10 ATCGAAGAAA AGAAAAGACA ACAAGAGGAT TACCTGCTTT ACAAGCAAAT GAGGCAACTG 540
 AAAAAACCCCT TGGAAATAGT CAGCATACCT GATAATCATG GACATATTGA TCCTCTCTG 600
 AGACTCATCT GGGATTGGC TTTCCTTGA AGCTCTACG TGATGTGGGA AATGACAACA 660
 CAGGTGTGAC ACTACTACTT GGCACAGCTC ACTAGTGTGA GGCAGTGGGT AAGAAAAACC 720
 TGAAATATAA CTTGTGCCAC AAGAGTTACA ATCAAAGTGG TCTCCTTAGA CTGAATTCAT 780
 15 GTGAACITCT AATTTCATAT CAAGAGTTGT AATCACATTT ATTTCAATAA ATATGTGAGT 840
 TCCTGC 846

Seq ID NO: C52 DNA Sequence
 Nucleic Acid Accession #: NM_005409.3
 Coding sequence: 94..378

20 1 11 21 31 41 51
 | | | | | |
 25 TTCTTTTCAT GTTCAGCAT TCTACTCCTT CCAAGAAGAG CAGCAAAGCT GAAGTAGCAG 60
 CAACAGCACCC AGCAGCAACA GCAAAAAACA AACATGAGTG TGAAGGGCAT GGCTATAGCC 120
 TTGGCTGTGA TATTGTGTGC TACAGTTGTT CAAGGCTTCC CCATGTTCAA AAGAGGACGC 180
 TGTCTTTGCA TAGGCCCTGG GGTAAAAGCA GTGAAAGTGG CAGATATTGA GAAAGCCTCC 240
 ATAATGTACC CAAGTAACAA CTGTGACAAA ATAGAAGTGA TTATTACCCT GAAAGAAAAT 300
 AAGAGACACG GATGCTTAAA TCCCAATTCG AAGCAAGCAA GGCTTATAAT CAAAAAAGTT 360
 30 GAAAGAAAGA ATTTTAAAA ATATCAAAAC ATATGAAGTC CTGAAAAGG GCATCTGAAA 420
 AACCTAGAAC AAGTTAACT GTGACTACTG AAATGACAG AATTCTACAG TAGGAAACTG 480
 AGACTTTTCT ATGTTTGTG GACTTTCAAC TTTTGTACAG TTATGTGAAG GATGAAAGGT 540
 GGGTGAAAG ACCAAAAACA GAAATACAGT CTTCTGAAAT GAATGACAAT CAGAATTCOA 600
 CTGCCCCAAG GAGTCCAGCA ATTAATGGA TTCTAGGAA AAGCTACCTT AAGAAAGGCT 660
 35 GGTACCATC GGAATTTACA AAGTGCTTTC ACGTCTTAC TTGTGTATT ATACATTCAT 720
 GCATTTCTAG GCTAGAGAAC CTCTAGATT TGATGCTTAC AACTATTCTG TTGTGACTAT 780
 GAGAACATTT CTGCTCTAG AAGTTATCTG TCTGTATTGA TCTTTATGCT ATATTACTAT 840
 CTGTGGTTAC AGTGAGGACA TTGACATTAT TACTGGAGTC AAGCCCTTAT AAGTCRAAAG 900
 CATCTATGTC TGTAAGACA TTCTCAAAC ATTTTTCAT GCAATACAC ACTTCTTCC 960
 40 CCAAAATATG TGTAGCAT CATATGTAG GGAACATTC TTATGCATCA TTTGGTTTGT 1020
 TTTATATACA ATTCAATAA TGTAATTCAT AAAATGACT ATGAAAAAA TTATACGCTA 1080
 TGGATACG GCAACAGTGC ACATATTCA TAACCAAAAT AGCAGCACCG GTCTTATTT 1140
 GATGTTTTTC AACTTTTATT CATTGAGATG TTTTGAGCA ATTAGGATAT GTGTGTTTAC 1200
 TGTACTTTTT GTTTGATCC GTTTGTATAA ATGATAGCAA TATCTTGAC ACATTTGAAA 1260
 45 TACAAATATG TTTTCTCTAC CAAGAAAAA TGTGAAAAA TAAGCAATG TATACCTAGC 1320
 AATCACTTTT ACTTTTGTG ATTCTGTCTC TTAGAAAAA ACATAATCTA ATCAATTTCT 1380
 TTGTTTATGC CATATATCTG TAAATTTAG GTATACTCAA GACTAGTTTA AAGAAATCAA 1440
 GTCATTTTTT TCTCTAATAA ACTACCAACA CCTTCTTTT TTAACAAAAA AAA 1493

Seq ID NO: C53 DNA Sequence
 Nucleic Acid Accession #: FGENESH predicted
 Coding sequence: 1..609

50 1 11 21 31 41 51
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 55 ATGCTGCGGC AGGIGCTTCG CAGAGGGCTC CAGTCCCTCT GCCACAGGCT GGGTTTGTGC 60
 GTGAGCCGCG ACCCGTCTT TTCTCTACC GTGCCGCGAG TCCGACAAAT CACCTTCGCG 120
 CTCAGCGCGC TCACCCGCTT CCGCCCGAG GCGGACCTGG AGCGCCTGGT GCGTCCGAGC 180
 CACAGCCTGG CCAAGATCGA GCGCAGCCTG GCCAGCAGCC TTTTCCCTCT GGAACAGTCC 240
 60 AAGAGCCAGC TCTATTGCGA CTTACACACC CCTGGGAGGT ATGCGAGGCT GATCCTCCTC 300
 TCCCCAACCG GGGACAATAT TTTGCTCCAG GCTGAGGGGA TCTGCGAGAC CCACCGAGCC 360
 GTCTGGAAA TGAGGTGAA CCACAAGGGC TATAATTATA CTTTTCCTCA TCTGTGTGTG 420
 TTGAGAAATC AGGATAAGAA ATGCGTGTCT GATGATATTA TTTCACTGCT AGAGGATCTC 480
 AGGCAGGCTG CCGTCTCCAA TAAGACAACA GCCAGGCTGC AAGTGAGGTA TCCCAACACT 540
 65 AATTTAAAGG TATGCTCCTT CTGCATGCTT CTGCCAATTA AAGAGGCAGC ACTTCATTTT 600
 TTGCCCTAA 609

Seq ID NO: C54 DNA Sequence
 Nucleic Acid Accession #: NM_002438.1
 Coding sequence: 104..4474

70 1 11 21 31 41 51
 | | | | | |
 75 GGGAAGTGG ATTAGGTGGA GAGGCAGTTG GGGGGCCTCG TTGTTTGTGG TCTTAGTTCC 60
 GCGCTCCTGT CCATCAGGAG AAGGAAGGA TAAACCTCG GCGATGAGGC TACCCCTGCT 120
 CCGTGTGTTT GCTCTGTCTA TTCCGGGTGC TGTCTCTCTA CTGGACACCA GGCAATTTTT 180
 AATCTATAAT GAAGATCACA AGCGCTGCGT GGATGCAGTG AGTCCAGTG CCGTCCAAAC 240
 CGCAGCTTGC AACCGGATG CCGAATCACA GAAATTCOGA TGGGTGTCCG AATCTCAGAT 300
 TATGAGTGTG GCATTTAAAT TATGCTGTGG AGTGCCATCA AAAACAGACT GGGTTGCTAT 360
 80 CACTCTCTAT GCGCTGACT CAAAAAGTGA ATTTGAGAAA TGGGAGTGCA AAAATGACAC 420
 ACTTTTGGGG ATCAAAGGAG AAGATTATT TTTTAATAC GGCAACAGAC AAGAAAAAGAA 480
 TATTATGCTC TACAGGGAT CCGGTTTATG GAGCAGGTGC AAGATCTATG GAACACAGA 540
 CAATCTGTGC TCCAGAGGTT ATGAAGCCAT GTATACGCTA CTAGGCAATG CCAATGAGGC 600
 AACCTGTGCA TTCCGTTCA AGTTTGAAAA CAAGTGTATC GCAGATTGCA CGAGTGTCTG 660
 GCGGTGCGAT GATGGCTCT GGTGCGAAC CACTACTGAC TATGACACAG ACAAGCTATT 720

| | | | | | | | |
|----|-------------|-------------|-------------|-------------|-------------|-------------|------|
| 5 | TGGATATTGT | CCATTGAAAT | TTGAGGGCAG | TGAAAGCTTA | TGGAATAAAG | ACCCGCTGAC | 780 |
| | CAGCGTTTCC | TACCGATATA | ACTCCAAATC | OGCTTTAAG | TGGCACCAG | CGAGGAAAAG | 840 |
| | CTGCCAACAA | CAGAACGCTG | AGCTCCTGAG | CATCACAGAG | ATACATGAGC | AAACATACCT | 900 |
| | GACAGGATTA | ACCAGTTTCT | TGACCTCAGG | ACTCTGGATT | GGACTTAACA | GTCTGAGCTT | 960 |
| | CAACAGCGGT | TGGCAGTGGG | GTGACCGCAG | TCCTTTCCGA | TATTTGAAC | GGTTACCAGG | 1020 |
| | AAGTCCATCA | GCTGAACCTG | GAAAAGGCTG | TGTGTCACTA | AATCTGGGAA | AAAATGCTAA | 1080 |
| | ATGGGAAAAAT | CTGGAAATGT | TTCAAGAACT | GGGCTATATT | TGCAAAAAGG | GCAACACCAC | 1140 |
| | TTTAAATTTCT | TTTGTATTTC | CCTCAGAAAG | TGATGTGCC | ACTCACTGTC | CTAGTCAGTG | 1200 |
| 10 | GTGGCCGTAT | GCCGGTCACT | GTACAAAGAT | TCACAGAGAT | GAGAAAAAAA | TCCAGAGGGA | 1260 |
| | TGCTCTGACC | ACCTGCAGGA | AGGAGGGCGG | TGACCTCACA | AGTATCCACA | CCATCGAGGA | 1320 |
| | ATTGGACTTT | ATTATCTCCC | AGCTAGGATA | TGAGCCAAAT | GACGAATTGT | GGATCGGCTT | 1380 |
| | AAATGACATT | AAGATTCAAA | TGTACTTTGA | GTGGAGTGT | GGGACCCCTG | TAACTTTTAC | 1440 |
| | CAATGCTT | CGTGGAGAAC | CAAGCCATGA | AAACAACAGA | CAGGAGGATT | GTGTGGTGAT | 1500 |
| 15 | GAAAGGCAG | GATGGGTACT | GGCAGATCC | GGGCTGTGAG | TGGCTCTTTG | GCTACATCTG | 1560 |
| | CAAGATGAAA | TCACGAGCC | AAGGTCCAGA | AATAGTGGAA | GTGAAAAAAG | GCTGCAGGAA | 1620 |
| | AGGCTGGAAG | AAACATCACT | TTTACTTGTA | TATGATTGGA | CATACGCTTT | CAACATTGTC | 1680 |
| | AGAGGCAAAAC | CAACCTCTGA | ATAATGAGAA | TGCTTATTTA | ACAACATTATG | AAGACAGATA | 1740 |
| | TGAACAAGCC | TTCTCTGACT | GTTCGTGTGG | CTTAAGGCTT | GAAAAATATT | TCTGGACAGG | 1800 |
| 20 | ACTTTCAGAT | ATACAAACCA | AAGGACCTTT | TCAGTGGACC | ATCGAGGAGG | AGGTTCTGGT | 1860 |
| | CACCCACTGG | AATTCAGATA | TGCCAGGGCG | AAAGCCAGGG | TGTGTGCGCA | TGAGAACCGG | 1920 |
| | GATTGCAAGG | GGCTTATGGG | ATGTTTGTAA | ATGTGATGAA | AAAGCAAAAT | TTGTGTGCAA | 1980 |
| | GCACTGGGCA | GAAGCTTAA | CCACCCACC | GAAGCCCAAG | AGGACTCCCG | AACCCAAATG | 2040 |
| | TCGAGGAGAT | TGGGGCGCCA | GCAGTAGAAC | AAGCTTGTGT | TTCAAGCTGT | ATGCAAAAGG | 2100 |
| 25 | AAAACATGAG | AAGAAAAAGT | GGTTTGAATC | TCGAGATTTT | TGTGAGCTTC | TGGGTGGAGA | 2160 |
| | CTTAGCTAGC | ATCAATAACA | AAGAGGAACA | GCAAAACAATA | TGGCGATTAA | TAAACAGCTAG | 2220 |
| | TGGGAAGCTAC | CACAAACTGT | TTTGGTTGGG | ATTGACATAT | GGAAAGCCCTT | CAGAAAGGTTT | 2280 |
| | TACTTGGAGT | TAGGCTTCTC | CTGTTTCATA | TGAAAACTGG | GCTTATGGAG | AACCTAATAA | 2340 |
| | TTATCAAAAT | GTGAAATACT | GTGGTGAGCT | GAAAGGTGAC | CCTACTATGT | CTTGGAAATGA | 2400 |
| 30 | TATTANTTGT | GAACACCTTA | ACAACCTGGAT | TTGCCAGATA | CAAAAAGGAC | AAACACCAAA | 2460 |
| | ACCTGAGCCA | ACACAGCTCT | CTCAAGACAA | TCCACCAGTT | ACTGAAGATG | GGTGGGTTAT | 2520 |
| | TTACAAAGAG | TACCACTATT | ATTTTCAGCA | AGAGAAAGGAA | ACCATGGACA | ATGCGCGAGC | 2580 |
| | GTTTTGCAG | AGGAAATTTG | GTGATCTTGT | TTCTATTCAA | AGTGAAGATG | AAAAGAAATG | 2640 |
| | TCTATGGAAG | TATGTAAACA | GAAATGATGC | ACAGTCTGCA | TATTTTATTG | GTTTATTGAT | 2700 |
| 35 | CAGCTTGGAT | AAAAAGTTTG | CTTGGATGGA | TGGAAGCAAA | GTGGATTAGC | TGTCTTGGGC | 2760 |
| | CACAGGTGAA | CCCAATTTTG | CAAAATGAAGA | TGAAAACTGT | GTGACCATGT | ATTCAAAATTC | 2820 |
| | AGGGTTTGG | AATGACATTA | ACTGTGGCTA | TCCAAACGCC | TTCAATTGGC | AGCGACATAA | 2880 |
| | CAGTAGTATC | AATGCTTACC | CAGTTATGCC | TACCATGCC | TGGTCCCAT | CAGGGTGCAA | 2940 |
| | GGAGGTTGG | AATTTCTACA | GCAACAAGTG | TTTCAAAATC | TTTGGATTTA | TGGAAGAAAG | 3000 |
| 40 | AAGAAAAAAT | TGGCAAGAGG | CACGAAAAGC | TTGTATAGCC | TTTGGAGGGA | ATCTGGTCTC | 3060 |
| | CATACAAAAT | GAAAAAGAGC | AAGCATTTCT | TACCTATCAC | ATGAAGGACT | CCACTTTCTG | 3120 |
| | TGCTCTGAGT | GGGCTGATAT | ATGTCATATC | AGAACACAGC | TTCTTTTGGG | CGGATGGAGC | 3180 |
| | AGGAGTCCAT | TACACAAACT | GGGGGAAAGG | TTACCTTGGT | GGAGAAAGAA | GCACTCTTTC | 3240 |
| | TTATGAAGAT | GCTGACTGTG | TTGTTATTAT | TGGAGGTGCA | TCAAAATGAAG | CAGGAAAATG | 3300 |
| 45 | GATGGATGAT | ACCTGOGACA | GTAACGAGG | CTACATATGC | CAGACACGAT | CCGACCCCTC | 3360 |
| | CTTGACTAAT | CCTCCAGCAA | CGAATCAAA | AGATGGCTTT | GTAAATATG | GCAAAAGCAG | 3420 |
| | CTATTCACTC | ATGAGACAAA | AATTTCAATG | GCATGAAGCG | GAGACATACT | GCAAGCTTCA | 3480 |
| | CAATTCCCTT | ATAGCCAGCA | TTCTGGATCC | CTACAGTAAT | GCATTTGCGT | GGCTGCAGAT | 3540 |
| | GGAAACATCT | AATGAACGTG | TGTGGATCCG | CCTGAACAGT | AACCTGACAT | ATAATCAATA | 3600 |
| 50 | CACITGGACT | GATGAAGTGA | GGGTGAGGTA | CACAACTGG | GCTGCTGATG | AGCCCAAAAT | 3660 |
| | GAAATCAGCA | TGTGTTTATC | TGGATCTTGA | TGGCTACTGG | AAGACAGCAC | ATTGCAATGA | 3720 |
| | AAGTTTATAC | TTTCTCTGTA | AAAGATCAGA | TGAAATCCCT | GCTACTGAAC | CCCCCAAACT | 3780 |
| | GCCTGGCAGA | TGCCCGGAGT | CAGATCACAC | AGCATGGATT | CCTTTCCATG | GTCACTGTTA | 3840 |
| | CTATATTGAG | TCTCTATATA | CAAGAAACTG | GGGCCAAGCT | TCTCTGGAAT | GTCTTCTGAAT | 3900 |
| 55 | GGGTTCTCT | CTGGTTTCCA | TGAAAGTGC | TGCAGAAATCC | AGTTTCTCTG | CATATCGGGT | 3960 |
| | TGAGCCACTT | AAAAGTAATA | CCAATTTTGT | GATAGGATTG | TTCAAGAAATG | TTGAAGGGAC | 4020 |
| | GTGGCTGGG | ATAAATTAACA | GTCCGGTCTC | CTTTGTCAAC | TGGAACACAG | GAGATCCCTC | 4080 |
| | TGGTGAACGG | AATGATTTGT | TAGCTTTTACA | TGGCTCTTCT | GGGTTTGGGA | GTAAATTTCA | 4140 |
| | CTGTTCTTCC | TACAAAGGAT | ATATTGTGTA | AAGACCAAAA | ATTATTGATG | CTAAACCTAC | 4200 |
| 60 | TCATGAATTA | CTTCAACAAA | AAGCTGACAC | AAGGAAGATG | GACCCCTCTA | AACCGTCTTC | 4260 |
| | CAACGTGGCC | GGAGTAGTCA | TCATTGTGAT | CCTCTTGATT | TTAACGGGGT | CTGGCCCTTG | 4320 |
| | CGCTATTTTC | TTTTATAGTA | AAAGACGTGT | GCACCTACCT | CAAGAGGGCG | CCTTTGAAAA | 4380 |
| | CACCTCTGAT | TTTCAACATC | AGTCAAGCCC | AGGAACCTAGT | GATATGAAGG | ATCTGCTGGG | 4440 |
| | CAATATTGAA | CAGAAATGAC | ACTCGGTCTA | CTAGTACCTC | AATGCGATTG | TGAGATATTT | 4500 |
| 65 | GAAITTCATA | AAATTTGAAC | TGAAATTTAA | AAITTTTAGT | TCAATGTGAT | TGTTTCTTTT | 4560 |
| | AAAATGAGTA | CTGAATTTGA | CTGGTCTGTC | CTTTTCTCTT | TTGCCCTAAT | GAAGAAATTA | 4620 |
| | TTGCTTGTTT | TCTAGCTTGG | CAAGATATTT | TCAATAAAGA | GGGATAACAA | TGCTGATTAC | 4680 |
| | TACCTTTTAA | AATATTTTAG | ATAAATGCAC | ASCACCCACG | CACCCATCTC | AAGCATTAGT | 4740 |
| | GATGGGTAGC | TGATGTGAGC | TTTATGTGGA | TTTAAAGCAC | TCTAGAAACA | ATGAAGCTTC | 4800 |
| 70 | TTGGCATATT | TTAAGGAGCT | CCCAAAATGT | GTTACCTATT | AAATTTGAAC | TCAGCAAGTA | 4860 |
| | GAAGACCATT | TGAAAGTCA | GGTACAAAT | TCCTCAAGTG | GCATAAAAT | GTAGTCAGTT | 4920 |
| | TTCTCTTTTA | CCAGTTTPTA | TTTCCACTCC | AATATTATAG | AACITTTATT | GTACATGTGC | 4980 |
| | AGAAGATAAA | GGCAGCTGAG | AATCTTGTGT | CCCCCAAGAG | AGTTTTACAG | GCTGAGTGT | 5040 |
| | GCAATATGTG | TCTTTGTCTT | GTATATGTA | TATCAGGAAT | ACAAGGATGT | GAAATAAAC | 5100 |
| 75 | TGTAAATTTG | CATACCTGGA | TGTACTTAGA | TAATGTGAAA | TAAACATTAA | AGACAAAGTC | 5160 |
| | TATTTTTTAA | AAAAAATAAA | AAAAA | | | | 5185 |

Seq ID NO: C55 DNA Sequence
Nucleic Acid Accession #: NM_024574.2
Coding sequence: 424..2130

80

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|-------------|-------------|------------|------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| AGTGCAGACTA | GCGGCGGGCGG | GCGAAGCCCG | CGCCAGCCCC | GCGGGTGGCT | GCGGCATCCT | 60 |
| CCGCGCGGCC | AGCCCCCGCA | CGCTCCCTGC | AGTTTAAAG | GACCTCCCG | CGCTTCTCGG | 120 |

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|----|-------------|-------------|------------|-------------|------------|------------|------|
| 5 | CGCTGCCCGG | GGATTCCCCA | GCCTCCGCGG | GCTCCCTACT | CCACTTCGCA | GCAACTTCGG | 180 |
| | CGACCCGCGG | CCGCGCGGCC | TGCGCCGCGT | TTGAAGTTTG | CTGTGCCGAC | CGCAAAGTTG | 240 |
| | GGACACTTCA | CGCGGATTGA | TTTTCTCTCT | TTATCTGCCCT | CCGTCCCGCG | CTCCAGGGCT | 300 |
| | TCTCTTCTCT | GGATATTGGT | GCTTAGCATC | TTGGCAGGGT | CCGGGGACGT | GGACTATTTT | 360 |
| | GCACACCACA | CCACGGGGAG | GGATTTTTTT | CTATTTTCCC | TACGAAAAAC | AGATCTTTTT | 420 |
| | AAGGATGGTG | CTGCTCCACT | GGTGCTGCT | GTGGCTCTTG | TTTCCACTCA | GCTCAAGGAC | 480 |
| | CCAGAAGTTA | CCGACCCGGG | ATGAGGAAC | TTTTGAGATG | CAGATCCGGG | ACRAGGCATT | 540 |
| | TTTTCATGAT | TGCTCAGTAA | TTCCAGATGG | AGCTGAAATT | AGCAGTTATC | TCTTTAGAGA | 600 |
| 10 | TACACCTAAA | AGGTAITTTCT | TTGTGGTTGA | AGAAGACAA | ACTCCATTAT | CAGTCACAGT | 660 |
| | GACGCCCTGT | GATGCGCCTT | TGGAGTGGAA | GCTGAGCCTC | CAGGAGCTGC | CAGAGGACAG | 720 |
| | GAAGCGGGAA | GGCTCAGGTG | ATCTGGAACC | TCTTGAGCAG | CAGAAGCAGC | AGATCATTAA | 780 |
| | TGAGGAAGGC | ACTGAGTTAT | TCICCTACAA | AGGCAATGAT | GTTGAGTATT | TTATATCGTC | 840 |
| | TAGTTCCCCA | TCCGGTTTAT | ATCAGTTGGA | TCTTCTTTCA | ACAGAGAAAG | ACACACATT | 900 |
| 15 | CAAAGTATAT | GCCACCCAAA | CTCCAGAATC | TGATCAGCCA | TACCTGAGT | TACCTATGTA | 960 |
| | CCCAAGAGTA | GATGTGACCT | CAGTGGGGCG | CAACCAGGTC | ACTTTGGCCT | GGAAACCAAG | 1020 |
| | CCCACTGGCC | TCTTTCTGTA | AACAACCCAT | TCACTACTGT | GTGGTCATCA | ACAAAGAGCA | 1080 |
| | CAATTTCAAA | AGTCTCTGTG | CAGTGGAGGC | AAAACAGT | GCAGATGATG | CTTTTATGAT | 1140 |
| | GGCACCGAAA | CCTGGTCTGG | ACTTCAGCCC | CTTTGACTTT | GCCCACTTTG | GATTTCTCTC | 1200 |
| 20 | TGATAATTCA | GGTAAGAAAC | GCAGTTTCCA | GGCAAGCCCT | TCTCCAAAAC | TGGGGGCTCA | 1260 |
| | TGCTTACTCC | AGGCCCAAGG | TTGATATTCA | GAAATCTGTC | ATAGGAAACA | AGAACATCTT | 1320 |
| | CACCGTCTCT | GATCTGAAAC | CGACACGCA | GTACTACTTT | GACGTATTTC | TGGTCAACAT | 1380 |
| | CAACAGCAAC | ATGAGCACCG | CTTATGTAGG | TACCTTTGCC | AGGACCAAGG | AAGAAGCCAA | 1440 |
| | ACAGAAGACA | GTGAGCTTCA | AAGATGGGAA | GATACAGAT | GTATTTGTTA | AAAGGAAGGG | 1500 |
| 25 | AGCAAGTTT | CTACGGTTTG | CTCCAGTCTC | TTCTCAACCA | AAAGTCACTT | TCCTTATTTA | 1560 |
| | CTCTTGTCTG | GATGCTGTCC | AAATCCAAGT | GAGAAGAGAT | GGGAACTTTC | TTCTGTCTCA | 1620 |
| | GAATGTGGAA | GGCATTTCAGC | AGTTTCAGCT | TAGAGGAAAA | CCTAAAGCTA | AATACCTCGT | 1680 |
| | TGCACTGAAA | GGAAACAAGA | AAGGAGCATC | TATGTTGAAA | ATTCTAGCTA | CCCAAGGCC | 1740 |
| | TACTAAGCAG | TCATTTCCCT | CTCTTCTCTG | AGACACAAGA | ATCAAGCCTT | TTGACAAGCT | 1800 |
| 30 | CCGTACTGCT | TCCTCGGCCA | CCGTGGCTTG | GCTAGGCACT | CAGGAAAGGA | ACAAGTTTTC | 1860 |
| | CATCTACAAA | AAAGAAAGTG | ATGATAACTA | CAATGAAGAC | CAGAAGAAAA | GAGAGCAAAA | 1920 |
| | CCAATGTCTA | GGACCCAGTA | TAAGGAAGAA | GTCAAGAAAG | GTCTCTGTGA | AATATTCCCA | 1980 |
| | CAGTCAAAC | CTGCAGAAAG | CAGTGACCA | AGAAACAATT | AAAGGTCTTC | AGCCTGGCAA | 2040 |
| | ATCTTACCTG | CTGGATGTTT | ATGTCATAGG | ACATGGGGGG | CACCTCTGTA | AGTATCAGAG | 2100 |
| 35 | TAAGGTTTGG | AAAACCTAGAA | AGTTCTGTGA | GTACCTTCTT | TATAGAGATA | TATTTATGAT | 2160 |
| | AACTCCAGGA | GGGACATTAA | ATCACTTTAA | GTATAAACTG | ACTACTCCCA | CAGTTGAGAG | 2220 |
| | AACTTGTGAC | CTGTACTTGT | ACTATGGAAG | GAAGGATATC | AACGTGTGTA | TATTTGATGT | 2280 |
| | TATATAAGTA | ACTCTTGAAG | GAAGCTTGT | CTAGCGTGCC | CCATGGTACC | TAGTGTGTGT | 2340 |
| | CTGATGCCGG | TGCTGTGCTA | AGATAGAGGG | CTTCTTGAAG | GAACCTGCCA | TTCTTGTGCT | 2400 |
| 40 | TGACCACTGC | ATGAACCTGT | TCTAAATTAT | TTTATTACCT | AAAAATTATA | AATATGCCAT | 2460 |
| | TCATTCGACA | CACCCACAAA | TGCAATCAT | TCCTCTCTAT | AGATGCTAGG | ATATATATAA | 2520 |
| | ATTATTTTAT | AAATCTCTGT | TTTAAATGTC | AGTGTTTCTA | TGATGTAAAA | CTATTAAATT | 2580 |
| | CTTTTCCCTAT | TAAAGTACAG | ATCTAATCTA | AGTATTATTA | AGTTGATAGC | CCCTAGTCA | 2640 |
| | GTTATATTGC | TATTTGTAAT | TCTTGTGTGT | TGAGTAAAT | GTTTAAATAC | TATATGTATC | 2700 |
| 45 | TCATGTACAA | AGTTGACATA | CATTATATTC | ATGTACATAA | AAATTAAGAG | ATTAGATTAT | 2760 |
| | ATACTGTTAA | AAAAAAAATA | AAAAAAAATA | AAAAAAAATA | AAAAAAAATA | | 2808 |

Seq ID NO: C56 DNA Sequence
Nucleic Acid Accession #: BC034229.1
Coding sequence: 373..1422

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|----|------------|------------|------------|------------|------------|------------|------|
| 50 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | ATCGCGCGGT | GGTAGCGGGA | GAGGCTGGGG | TCTCCAGGAC | CAACTCTCTC | TCATCTTCGT | 60 |
| 55 | CTTCCTCAGC | CTGCTCAATG | TGAAGCCCTT | GATCATGATT | CACCTCCACT | TAATAAATAA | 120 |
| | AGTGTTTACA | AATCAGAAAT | ACTTTTAGAC | AATATTAAGG | TGGTAATCAT | GAACAGAAAA | 180 |
| | GATTTTGTAG | TTCTTCCATG | GGGAAAACCT | GGAAATTCCT | TAAAGCTAAA | ATATAGCAAT | 240 |
| | GTAAATATTA | AAACAAAGT | CTAAGATTTC | AAGAGATAAT | TTGCTTCAGG | ATTTTGTATG | 300 |
| 60 | AAGGCAATG | CTACTTTTAA | AAACCAAGAT | TGGGAGAGT | ACAAAAGAAA | TAGAAATGCT | 360 |
| | CAAGAACTGC | GAATGGAGAA | AGTACAGTTA | GAATTTGAGA | ACCAAGAGAT | GGAGAGAGAA | 420 |
| | CTGCAAGAA | TCCGATCCAC | AAGAAACAAA | GAAGAGGAAG | ATAGAGAGTC | AAGCGAGTAT | 480 |
| | TACTGGAAAT | CTGGAAAAGT | GGCAAAATTG | GTCAATCAAT | CATATATGAT | GTCACAAAAT | 540 |
| | AAAGGAAATG | TTGTTAAGTT | TTCTGCTGGA | AAAGTGAAAT | TAAATTTGCT | GAAGGAACAG | 600 |
| 65 | ATTCAGAGC | CAGTGAAACC | AACAGTTAAT | TATAAAATGG | CAATTTCTTC | AGAAAGTGAA | 660 |
| | AAACCCAGGA | TAAATGGGAA | AGTTTGTGGA | CAGTGTGAGA | ACAAAGCTGC | TCTACTGGTA | 720 |
| | TGCTTTGAAT | TGGGAGAAGA | TTATTTGTTA | GGATGCTTTG | CTAATGTTCA | CCAGAAAGGG | 780 |
| | GCATTAAGC | TCCACAGAAC | AACCTTTTTC | CAGGCAAGAT | CTCAATATAT | ATTCAATGTA | 840 |
| | TTGGATGTTG | CCCATCAGTT | TATAAAGGAT | GTAAATCCAG | ATGAACCCAA | AGAGGAGAA | 900 |
| 70 | AATTTTACAA | AGGAAACCCG | TAAAAATCAA | CATAAACCCA | AACTCTGACT | TCTCCAGAGG | 960 |
| | AGCAGCTCTG | AGGTAGAAAT | TACAACGATG | AAAAGAGCAC | AACGTACAAA | ACCAAGAAAG | 1020 |
| | AGTCTGTTGT | GTGAAGGGTC | ATTGATGTA | GAAGCTTCTG | CACAGTCTCT | TCAGGAAGTG | 1080 |
| | TTAAGTCAAT | GGAGAACCAG | AAATCATGAT | GACACACAGA | AACAGAAATT | ACATGCAGCA | 1140 |
| | GTAAAGACT | CATTGGAGAA | ATTGGAAGTA | CAGACTAATC | TGAAAATTTG | GAGAGAACCA | 1200 |
| 75 | CTTAATATTG | CACTTAAAGA | AGACATTCTA | TCCTATATGG | AAAAATTATG | GCTTAAAAAA | 1260 |
| | CACAGAGAAA | CTCCACAGAA | GCAACTTTTT | AAATGCTACC | AGATACGTTT | CCCATCCAC | 1320 |
| | ATGAACCCAC | TGGTATGTC | CAGTGTCTCT | AAAATGAAAA | CGATGAAGAT | AGTGTAGGTT | 1380 |
| | AGGAGACCAA | AGTACAACAC | ACAGCTCTTT | TATTGCCAGT | AGAAACATTA | AACATAGAGA | 1440 |
| 80 | GACCTGAACC | ATCTCTGAG | ATAGTCCGAC | TGGATGATAC | TTATGAAGAG | GAATTTGAGG | 1500 |
| | AAGCAGAAAA | TATTTGTGCT | TACAAAGTTA | AATTAGCTGA | TGCAGACAGT | CAACGAAGTT | 1560 |
| | GTGCTTTTCA | TGATTTGTG | AAGAAAGTCT | TTCCATATGA | AAATGGCATC | CATCACTATC | 1620 |
| | ATGTTTTTCA | TAAAGGAAAG | AGAGACTTCT | TAAATCTTTG | TCTGAGAAAC | AGCTCTACTT | 1680 |
| | ATTATATAAG | TAAATCAAAA | GGAGAAACTT | CAACACAGAG | TTTTGACATC | ATCGTGGATC | 1740 |
| | CTGATGTGTA | TTCTTCTGAC | ATTGAAAAAA | TTGAGGAAAG | CACCTCTCTT | GAAAGAAATT | 1800 |
| | TAAAGGAGAA | AAATATAGGT | TTAGAAAGTA | ATCAAAAGTC | TGATGATTCC | TGTTATATAC | 1860 |

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|----|------------|-------------|-------------|------------|-------------|-------------|------|
| 5 | TTGAAAGCAA | GGACACTTTG | CTAGGTAGAG | ATTTAGAAAA | AGCTCCCAAT | GAGGAGAAAT | 1920 |
| | TATCTCAAGA | CATCAAAGAA | TCCTTGGAAAT | TGAGCAATCT | GTATAAGAGG | CCAAGCTTTG | 1980 |
| | AAGAATCAAA | AACTACAAAG | TCATCACTGT | TGTTACAGAG | AATAGCCCTGC | AGAAGTAAGC | 2040 |
| | CTATAACAAA | ACAATATCAA | GGACTTGAGA | GATTCCTTAT | TTTTGATACA | AATGAAAGAC | 2100 |
| | TCRACTTACT | TCCTTCTCAT | CSTTTAGAAAT | GCAACAATTC | CAGTACTAGG | ATTACACTTG | 2160 |
| | CAGGTCAGAA | ATCACAGAGA | CCITCAACAG | CAAATTTTCC | ACTTTCCAAC | TCGTATAAG | 2220 |
| | AAAGCTCCAG | TGCGCTTTCA | TCCTCTCATC | CTCGATCAAG | AAGTGCAGCT | GCTCAATCAT | 2280 |
| | CATCTAGAGC | TGCTTCTGAA | ATTTACAGAA | TTGAATATAT | TGATATTACT | GACCAGAATG | 2340 |
| 10 | AGCTTTCCTT | AGATGACACT | ACTGATCAAC | ATACTTTAGA | CAATTTGGAA | AAAGAATTAC | 2400 |
| | AAGTGCTGAG | ATCTCTTGCA | GATACTTCAG | AAAAGCTTTA | CAGCTTAACC | TCAGAAGAGT | 2460 |
| | TCCAGATTTT | CAGCAGCCAA | TCACATGAATA | TAAATCAGAT | TTCCACAGAT | TTCTTAAGA | 2520 |
| | CCTTACATGT | GAGGGGTCCC | TGTGGAGTTG | AGGAATTGAG | CTGTCTCGGA | AGAGATACCA | 2580 |
| | AAATTCAGTC | TTTGTCTGCA | CTTCTGAGA | GCAGTACAGA | TGAGGAGGAG | GAAGATTTTC | 2640 |
| 15 | TCACACAGCA | ACATGTCTATC | ACACTACCGT | GGTCAAGAGG | TACTTAAAGA | TTATTTGTTT | 2700 |
| | ATTACTGTTT | CCATTTTGTA | CCAGAGTAA | AGCAACAAC | TGAGAAAAGT | AAOCAAAGTGA | 2760 |
| | TTACCTATCC | AAGTCTGGG | GATTTTGATT | ACTAATGTCT | TTGATGTTTC | AAGGCTACAA | 2820 |
| | ACTAATAAAA | GTAATAATAT | AAGTTCAAAA | AAATTTTAA | AAAAAAAAT | AAAAAA | 2876 |

20 Seq ID NO: C57 DNA Sequence
Nucleic Acid Accession #: NM_024687.1
Coding sequence: 138..1706

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|----|-------------|-------------|-------------|-------------|-------------|------------|------|
| 25 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | AAAAACATGA | TGACAACAA | AAACAGAAAT | TACATGCAGC | AGTAAAGAC | TCATTGGAAG | 60 |
| | AATGCGAAGT | ACAGACTAAT | CTGAAAATTT | GGAGAGAAC | ACTTAATATT | GAACITTAAG | 120 |
| | AAGACATCTT | ATCCTATATG | GAATAATTTT | GGCTTAAAA | ACACAGGAGA | ACTCCACAA | 180 |
| 30 | AGCAACTTTT | TAAATGCTA | TCAGATACGT | TOCCACATCC | ACATGAAACC | ACTGGTGATG | 240 |
| | CACAGTGTC | TCAAAATGAA | AAAGATGAAG | ATAGTGATGG | TGAGGAGACC | AAAGTACAA | 300 |
| | ACACAGCTCT | TTTATTGCCA | GTAGAAACAT | TAAACATAGA | GAGACCTGAA | CCATCTCTGA | 360 |
| | AGATAGTCAA | ACTGGATGAT | ACTTATGAAG | AGGAATTGGA | AGAAGCAGAA | AAATATTGTC | 420 |
| | CTTACAAAGT | TAAATTAGCT | GATGCAGACA | GTCAACGAAG | TTGTGCTTTT | CATGATTGTC | 480 |
| 35 | AGAAGAAATG | CTTCCATAT | GAATAATGGCA | TCCATCAACA | TCATGTTTTC | GATAAGGGAA | 540 |
| | AGAGAGACTT | CTTAAATCTT | TGTCTGAGAA | ACAGCTCTAC | TTATTATATA | GATAATTCAA | 600 |
| | AAGGAGAAAC | TTCAAACACA | GATTTTGACA | ACATCGTGGG | TCCTGATGTG | TATTTCTCTG | 660 |
| | ACATTGAAAA | AAATGAGGAA | AGCACCTCCT | TTGAAAGAAA | TTTAAAGGAG | AAAAATATAG | 720 |
| | GTTTAGAAAG | TAAACAAAG | TCTGATGATT | CCTGTGTATC | ACTTGAAGGC | AAGGACACTT | 780 |
| 40 | TGCTAGGTAG | AGATTTAGAA | AAAGCTCCCA | TTGAGGAGAA | ATTATCTCAA | GACATCAAG | 840 |
| | AATCCCTTGA | ATGAGCAAT | CTGTATAAGA | GGCCAGGCTT | TGAAGAAATCA | AAACTACAA | 900 |
| | AGTCATCACT | GTGTGTACAA | GAATAGCCCT | GCAGAAGTAA | GCCTATAACA | AAACATATC | 960 |
| | AAGGACTTGA | GAGATTCCTT | ATTTTGTATA | CAATGAAAG | ACTCAACTTA | CTTCCCTTCT | 1020 |
| | ATCGTTTGA | ATGCAACCAAT | TCCAGTACTA | GAATTACACT | TGCAGAGAC | AGAGAAATGA | 1080 |
| 45 | TTCCAGACCA | TAGCTTAAGT | GAATATGCTG | ATAATGCAAT | TGTCTTGGGT | GTCTCTGAGG | 1140 |
| | GTGCTCAGAG | TCCATCATCA | AGTAGAAAC | AGCAAAAGAT | GGGTCCAGAA | TCACAGAGAC | 1200 |
| | CTTCAACAGC | AAATTTTCCA | CTTTCCAACT | CTGTTAAAGA | AAGCTCCAGT | TGCCCTTCTC | 1260 |
| | CCTCTCATCC | TCGATCAAGA | AGTGCAGCTG | CTCATCATC | ATCTAGAGCT | GCTTCTGAAA | 1320 |
| | TTTCAGAAAT | TGAATATATT | GATATTACTG | ACCAGAAATGA | GCPTTCCCTTA | GATGACACTA | 1380 |
| 50 | CTGATCAACA | TACTTTAGAC | AAATTTGAAA | AAGAATTACA | AGTGTCTAGA | TCTCTTGAG | 1440 |
| | ATACTTCAGA | AAAGCTTTAC | AGCTTAACCT | CAGAAAGATT | CCCAGATTTT | AGCAGCCAA | 1500 |
| | CACGTGAATAT | AAGTGCAGAT | TCACAGATT | TCCTTAAGAC | CTCACATGTG | AGGGGTCCCT | 1560 |
| | GTGGAGTTGA | GGAAATGAGC | TGTTCTGGAA | GAGATACCAA | AAATCAGTCT | TTGCTGTCC | 1620 |
| | TTTCTGAGAG | CAGTACAGAT | GAGGAGGAGG | AAGATTTTCT | CAACAAGCAA | CATGTCTACA | 1680 |
| 55 | CACCTACCTG | GTCAAGAGAT | ACTTAAAGAT | TATTTGTTC | TTACTGTTTC | CATTTGTAC | 1740 |
| | CCAGAGTAAA | GCAACCAACT | GAGAAAGTAA | ACCAAGTGAT | TACCTATCCA | AGTGTCTGAG | 1800 |
| | ATTTGATTA | CTAATGTCTT | TGATGTTTCA | AGGCTACAAA | CTAATAAAG | TAAATTTATA | 1860 |
| | AGTTCAAAA | AAAAAAA | AAAA | | | | 1884 |

60 Seq ID NO: C58 DNA Sequence
Nucleic Acid Accession #: NM_005408.1
Coding sequence: 76..372

| | | | | | | | |
|----|------------|------------|------------|------------|-------------|------------|-----|
| 65 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | AAAAGGCCGG | CGGAACAGCC | AGAGGAGCAG | AGAGGCCAAG | AAACATTGTG | AAATCTCCAA | 60 |
| | CTCTTAACCT | TCACATGAA | AGTCTCTGCA | GTGCTTCTGT | GCTTGTCTGT | CATGACAGCA | 120 |
| | GCCTTCAACC | CCAGGGGACT | TGCTCAGCCA | GATGCACTCA | AGCTCCCATC | TACTTGCTGC | 180 |
| | TTCACTTTA | GCAGTAAGAA | GATCTCCTTG | CAGAGGCTGA | AGAGCTATGT | GATCACCACC | 240 |
| 70 | AGCAGGTGTC | CCCAAGAGGC | TGTCATCTTC | AGAACCAAC | TGGGCAAGGA | GATCTGTGCT | 300 |
| | GACCCAAAGG | AGAAATGGGT | CCAGAAATAT | ATGAAACACC | TGGGCCGGAA | AGCTCACACC | 360 |
| | CTGAGACTTT | GAATCTGTCT | ACCCCTACTG | AAATCAAGCT | GGAGTACGTG | AAATGACTTT | 420 |
| | TCCATTCTCC | TCTGGCTTCC | TCTTCTATGC | TTTGGAAATC | TTCTACCATTA | ATTTTCAAAT | 480 |
| | AGGATGCAAT | CGGTTTGTG | ATTCAAAATG | TACTATGTGT | TAAATTAATAT | TGGCTATTAT | 540 |
| 75 | TTGACTTGT | GCCTGGTTGG | AGTTTATTTG | AGTATTGCTG | ATCTTTTCTA | AAGCAAGGCC | 600 |
| | GGGTTTGTAT | TGGGTTCCCA | GGGGTTGAGA | GCATGCTGTG | GGGAGTCAATG | GACATGANGG | 660 |
| | GATGCTGCAA | TGTAGGAAGG | AGAGCTCTTT | GTGAATGTGA | GGTGTGTCTA | AATATGTTAT | 720 |
| | TGTGGAAGA | TGAATGCAAT | AGTAGGACTG | CTGACATTTT | GCAGAAAATA | CATTTTATTT | 780 |
| 80 | AAATCTCCCA | AAAAAAA | | | | | 840 |

Seq ID NO: C59 DNA Sequence
Nucleic Acid Accession #: AK097746.1
Coding sequence: 185..2224

| | | | | | | | |
|----|------------|------------|-------------|------------|------------|-------------|------|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 5 | CTTTCATGAC | AGTAACAAAT | CCAAGATTTT | GGAAAAGCGC | CTACGATATT | TAAATGACCA | 60 |
| | CTTCACATAC | AACITATATT | GTAATATATG | CCGATCAGTA | TTTGAGAGG | ACAAGCTGTT | 120 |
| | ATTTTCCTTT | TTATTATGTG | CCRAATCTTCT | TCTGGCAAGG | AAAGAGATTG | AATACCAGGA | 180 |
| | ACTGATGTTT | CTTTTAACTG | GAGGAGTAAG | TCTTAAAGT | GCTGAGAAAA | ATCCTGATCC | 240 |
| | AACTTGGCTA | CAGGACAAAA | GCTGGGAGGA | AATCTGTCCG | GCAAGTGAAT | TTCTGCTT | 300 |
| 10 | CAGAGGACTC | AGGCAACATT | TTTGTGAACA | TATATATGAA | TGGCGAGAAA | TCTATGACAG | 360 |
| | TAAAGAGCCA | CATATGCTA | AAITTCACG | ACCAATGGAT | AAGAACCTAA | ATGAACACCA | 420 |
| | GAAAATAATA | ATTCTTCGGT | GTTTAAGACC | TGATAAGATA | ACCCACAGTA | TAACAAACTA | 480 |
| | TGTAACAGAC | AAACTAGGGA | AAAAGTTTGT | AGAGCCTCCA | CCATTGTGAT | TGACAAAGAG | 540 |
| | TTACTTGGAT | TCAAATTGCA | CCATTCCCTT | AATTTTGT | CTATCTCCAG | GAGCAGATCC | 600 |
| | TATGGCCAGC | CTGCTGAAAT | TTGCAATGA | TAAATCTATG | TCTGSAATA | AGTTTCAAGC | 660 |
| 15 | TATTTCCACT | GGACAGGGAC | AAGGACCGAT | TGCAGCAAAA | ATGATTAAAG | CAGCAATTGA | 720 |
| | AGAAGGAAC | TGGGTGTGCC | TACAGAAATG | CCATCTTGCA | GTGTCTGGA | TGCCCATGTT | 780 |
| | GGAAAAATCA | TGTGAAGATT | TTACCTCTGA | AACCTGTAA | TCATCCCTTA | GGCTTTGGCT | 840 |
| | GACAAGCTAT | CCATCTTCAA | AATTCACAGT | AACAATCTA | CAGAAATGAG | TAAAAATGAC | 900 |
| 20 | TAATGAACCT | CCACCGGATC | TTCCGCTGAA | TCTCCTTCAA | TCATATCTCA | CTGATCCAGT | 960 |
| | TTCTGATCCT | GAGTTTTC | AGGGATGCGG | TGGAAAGGAA | CTGTATTATA | TCAATGAATA | 1020 |
| | TGATACAATT | CCATTGTGA | CTATATCTTA | CCTGACTGGG | GAGTGTATTT | ATGGAGGAAG | 1080 |
| | AGTGACAGAC | GATGGGACA | GACGCTTCT | ATTAACCATG | CTGGCTGACT | TTTATAATCT | 1140 |
| | GTACATAGTT | GAAACCCCTC | ATTATAAGTT | TTCTCCAGT | GGAACTATT | TTGCACCTCC | 1200 |
| 25 | TAAAGGCACT | TATGAGCACT | ACATTGAAT | CATTAGAAA | CTTCCATTTA | CTCAACACCC | 1260 |
| | TGAGATATTT | GGATTACATG | AAAACGTTGA | CATCTCCAA | GATCTTCAAC | AAACAAAAC | 1320 |
| | CCCTCTTGAG | TCCTTGCTCC | TCACCCAGGG | AGGCTOCAAA | CAGACAGGAG | CCTCAGGAAG | 1380 |
| | TACTGATCAG | ATTGAGATT | AAATTACCAA | AGATATCCTC | AACAAGCTCC | CTAGTGATT | 1440 |
| | CGACATTGAA | TGGCAGTAC | GGAGATATCC | TGTGAGATAT | GAAGAAAGCA | TGAACTACTGT | 1500 |
| 30 | GTATGATACA | GAACTGAAA | GATTTAACAA | TTTAAATATA | ACTATAAGTA | ACACTCTAAG | 1560 |
| | GGACCTTGAA | AAAGCTATTA | AGGGTGTGGT | TGTGATGGAT | TCTGCATTGG | AGGCATCTTC | 1620 |
| | CAGTAGCTTA | CTTGTTGGAA | AGGTTCCAGA | AATATGGGCC | AAACGTTTCA | ACCCAGGCT | 1680 |
| | TAAGCCCTTG | GGAGGTTACA | TCACAGATTT | CCTAGCCCGG | TGAACTTTT | TACAGGACTG | 1740 |
| | GTATAATTCA | GGAAACCCCT | GTGTGTTTTG | GCTGTGAGT | TTCTTTTCA | CTCAGGCTTT | 1800 |
| 35 | TTTAAGCTGA | GCTATGCAGA | ATTATGCCAG | AAAATATACC | ACCCCTATTG | ATTGTCTAGG | 1860 |
| | ATATGAATTT | GAGTTTATCC | CATCTGATAC | ATCTGACACA | TCACCAAGAG | ATGGTGTTTA | 1920 |
| | TATCCACGGA | CTGTATCTCG | ATGGGCGACG | CTGGGACCGA | GAAAGTGGAT | TGCTTGCTGA | 1980 |
| | ACAAATCTCC | AAACTCTGTG | TTGACCTGAT | GCCCATCATA | TGGATAAAAC | CAACTCAAAA | 2040 |
| | ATCTCGGATT | ATAAAGTCGG | ATGCCATATG | CTGTCCCTCC | TACAGACAAA | GTGAACGTAA | 2100 |
| 40 | AGGAACCTCT | TCCACTCAGG | GACATTCTAC | TAACTTTGTC | ATTGCAATGT | TGTTAAAAAC | 2160 |
| | AGACCAACCT | ACTCGGCACT | GGATCAAGCG | CGGGGTTGCT | TTGCTTTGTC | AGTTGGATGA | 2220 |
| | CTAAATTGGA | CAAAATTATA | AAACATCCAA | AAGTTT | | | 2256 |

Seq ID NO: C60 DNA Sequence
Nucleic Acid Accession #: J02761.1
Coding sequence: 14..1159

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|----|------------|------------|------------|------------|------------|------------|------|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 50 | GAATTCGGGT | GCCATGGCTG | AGTCACACCT | GCTGCAGTGG | CTGCTGCTGC | TGCTGCCAC | 60 |
| | GCTCTGTGGC | CCAGGCACTG | CTGCCTGAGC | CACCTCATCC | TTGGCCTGTG | CCCAGGGCCC | 120 |
| | TGAGTTCTGG | TGCCAAAGCC | TGGAGCAAGC | ATTGCAATGC | AGAGCCCTAG | GCCATTGCTT | 180 |
| | ACAGGAAGTC | TGGGACATG | TGGGAGCCGA | TGACCTATGC | CAAGAGTGTG | AGGACATGCT | 240 |
| | CCACATCCTT | AACAGATGG | CCAAGGAGGC | CATTTTCCAG | GACACGATGA | GGAAGTTCC | 300 |
| 55 | GGAGCAGGAG | TGCAACGTC | TCGCCCTGAA | GCTGCTCATG | CCCCAGTGCA | ACCAAGTCT | 360 |
| | TGACGACTAC | TTCCCTCTGG | TCATCGACTA | CTTCCAGAAC | CAGACGAGCT | CAAAAGGCT | 420 |
| | CTGTATGAC | CTGGGCTGTT | GCAATCCCG | GCAGCCAGAG | CCAGAGCAGG | AGCCAGGGAT | 480 |
| | GTGAGACCCC | CTGCCCAAA | CTCTGCGGGA | CCCTCTGCGA | GACCTCTGCT | TGGACAGCT | 540 |
| | OGTCTCCCT | GTGCTGCCCG | GGGCGCTCCA | GGCGAGGCT | GGGCTCACA | CACAGGATCT | 600 |
| 60 | CTCCAGCAG | CAATGCCCA | TTCTCTCTCC | CTATTGCTGG | CTCTGCAGGG | CTCTGATCAA | 660 |
| | GCGGATCCAA | GCCATGATT | CCAAGGCTGC | GCTAGCTGTG | GCACTGGCCC | AGGTGTGCTG | 720 |
| | CGTGTGACCT | CTGGTGGCGG | GCGGCATCTG | CCAGTGCCCT | GCTGAGGCT | ACTGCTCAT | 780 |
| | CCTGCTGAC | ACGCTGCTGG | GCCGCATGCT | GCCCGAGCTG | GTCTGCGGCC | TGCTCCTCG | 840 |
| | GTGCTCCATG | GATGACAGCG | CTGGCCCAAG | GTGCGGACA | GGAGAAATGC | TGCGCGGAGA | 900 |
| | CTCTGAGTGC | CACCTCTGCA | TGTCCGTGAC | CACCCAGGCC | GGGAACAGCA | GCGAGCAGGC | 960 |
| 65 | CATACACAG | GCAATGCTCC | AGGCTGTGTT | TGGCTCCTGG | CTGGACAGGG | AAAAGTGCAA | 1020 |
| | GCAATTTGTG | GAGCAGCACA | CGCCCAAGCT | GCTGACCTTG | GTGCCAGGG | GCTGGGATGC | 1080 |
| | CCACACACCC | TGCCAGGCC | TGGGGGTGTG | TGGGACCATG | TCCAGCCCTC | TCCAGTGTAT | 1140 |
| | CCACAGCCCC | GACCTTTGAT | GAGAACTCAG | CTGTCCAGCT | GCAAGAGAAA | AGCCAAATGA | 1200 |
| | GACGGGCTCT | GGGACCATGG | TGACCAAGCT | CTTCCCTGTC | TCCTGGCCCT | TGCCAGCTG | 1260 |
| 70 | CCAGGCTGAA | AAGAAGCCTC | AGCTCCCA | CCGCTCCTCT | CACCTCCCTT | CCTCGGCACT | 1320 |
| | CACCTCCACT | GGTGGACCC | GGGCCCCAG | CCCTGTGTCG | GCCTGTGTCG | TCTCAGCTCA | 1380 |
| | ACCACAGTCT | GACACCAAG | CCCACCTTCA | TCCCTCTGCT | TGTGAGGCTC | AGCAGAGGCA | 1440 |
| | GCATCTGGAG | GAGCTCTGCA | GCCTCCACAC | CTACCAAGAC | CTCCCAAGGC | TGGGCTCAGG | 1500 |
| | AAAAACAGC | CACCTGCTTA | CAGGACAGGG | GGTTGAAGCT | GAGCCCCGCC | TCACACCCAC | 1560 |
| 75 | CCCATGAC | TCAAAGATTG | GATTTTACAG | CTACTTGCAA | TTCAAAATTC | AGAGAAATAA | 1620 |
| | AAAAATGGGA | CATACAGAAC | TCTAAAAGAT | AGACATCAGA | AATGTGTTAG | TTAAGCTTTT | 1680 |
| | TCAAAAAATC | AGCAATTCOC | CAGCGTAGTC | AAGGTTGGAC | ACTGCAAGCT | CTGGCATGAT | 1740 |
| | GGGATGGCGA | CCGGGCAAGC | TTTCTTCTCT | GAGATGCTCT | GCTGCTTGAG | AGCTATTGCT | 1800 |
| 80 | TTGTTAAGAT | ATAAAAAGGG | GTTCCTTTT | GTCTTCTGT | AAGGTGGACT | TCCAGATTTT | 1860 |
| | GATTGAAAGT | CCAGGGGTGA | TTCTATTCT | GCTGTGATTT | ATCTGCTGCA | AGCTCAGCTG | 1920 |
| | GGGTGTGCA | AGCTAGGGAC | CCATTCCTGT | GTAATACAT | GTCTGCAACA | ATGCTAATAA | 1980 |
| | AGTCTATTTC | TCTTTTAAAA | AAAAAAAACG | GAATTC | | | 2026 |

Seq ID NO: C61 DNA Sequence

Nucleic Acid Accession #: NM_139172.1
Coding sequence: 19..552

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      CTGCAGGGCT CGGCAGACGG AATGGAATC CAGGGATTCT TCTACCCATG GAGCTGTGAG 120
      GGTGACATAT GGGACCGGGA GAGCTGTGGG GGCACGGCGG CCATCGATAG CCCCAACCTC 180
      TGCCCTGCTC TCCGTGCTG CTACCCGAAT GGGGTCTGCT ACCACCAGCG TCCAGACGAA 240
10     AACGTGCGGA GGAAGCACAT GTGGGCGCTG GTCTGGACGT GCACCGGCTT CCTCTCTCTG 300
      AGCTGCAGCA TCTGCTTGT CTGGTGGGCC AAGCGCGGG ACGTCTCTCA TATGCCGGGT 360
      TTCTCGGCGG GTCCGTGTGA CATGTCCAAG TCCGTCTCGC TGCTCTCCAA GCACCGAGGG 420
      ACCAAGAAGA CGCCGTCCAC GGGCAGCGTG CCACTCGCCC TGTCCTAAGA GTCCAGGGAT 480
      GTGGAGGGAG GCACCGAGGG GGAAGGGAGC GAGGAGGGTG AGGAGACAGA GGGCAGGAA 540
15     GAGGAGGATT AGGGAGATCC CCGGGGGACT GCTCAATACA GATACGCTGG ACG 593

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Seq ID NO: C62 DNA Sequence

Nucleic Acid Accession #: NM_054023.2

Coding sequence: 98..379

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20     1      11      21      31      41      51
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      GGGGACACTT TGTATGGCAA GTGGAACCCAC TGGCTTGGTG GATTTTGCTA GATTTTCTG 60
25     ATTTTAAAC TCCTGAAAAA TATCCAGAT AACTGTCATG AAGCTGGTAA CTATCTTCT 120
      GCTGGTGACG ATCAGCCTTT GTAGTTACTC TGCTACTGCC TTCCTCATCA ACAAGTGCC 180
      CCTCTCTGTT GACAAGTTGG CACCTTTACC TCTGGACAC ATTCTTCCCT TTATGGATCC 240
      ATTAAAGCTT CTTCGAAAA CTCTGGGCAT TTCTGTTGAG CACCTTGTGG AGGGGCTAAG 300
      GAATGTGTGA AATGAGCTGG GACCAGAGGC TTCTGAAGCT GTGAGAAAC TGCTGGAGGC 360
      GCTATCACAC TTGGTGTGAC ATCAAGATAA AGAGCGGAGG TGGATGGGGA TGGAGATGA 420
30     TGCTCTATC CTCCCTGCTT GAAACCTGTT CTACCAATTA TAGATCAAT GCCTTAAAT 480
      GTAGTACCC GTGAAAGGA CAATAAAGC AATGAATACT AAAAAAAAA AAAAAAAAA 540
      AAAAAAAAA 550

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Seq ID NO: C63 DNA Sequence

Nucleic Acid Accession #: FGENESH predicted

Coding sequence: 1..2074

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35     1      11      21      31      41      51
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40     TGGATGTGCA GAGGAGCATA TCAGCGSAGG AACACACGGG CAGCTGGACB TCCAGAGGAA 120
      TGCACCTGAC GAAACTGGCA TGCTGGCAGA ACACGTGGAA TTTGGCTGGG GCAGTTGGAG 180
      GAGAGATGTT CAGATGTGTT CGGAGTTTCT TTCTTCTGGT GGGTTCTGGG TCTGCTGGC 240
45     TCAGAGACGA ACCTGCAGAC CTTCAAGCCA GCCAGSAAAG GGGCTCCAC AGTGCCAGCG 300
      CAGGCTGAAG CGCTCTCAA GTGCCGCCAG AGTGGGCGTC CAGGCAGAGG AGGCGCCGAC 360
      AGCGAGCGAG CAGAGGATGC CAGCATGCTG TCACCTCTCA GTGCTGCCAT GCGAACTAC 420
      CCAAGTCTCT CTACCATCCC TCCAGAGA TACTACTCTC CACCGAAT TGCTCACAAG 480
      AGTTACTCTT CGAGCCTTCC AGACATGAAA ATCTCCATGG CAGAACTGG CCCTCCTTG 540
50     GATAGCCTTG ACATCTGGA GATGGCGAG TCTGGGTAC CATTTCTGT GACTCATTTG 600
      TACTTCTGG GGGTGTGAC CACTGGGATG GAACAACTAG ATTTTGAAC AGGACCAAC 660
      ATATTGAT TGCAGATT TA TGTGAAGAT GAGGTTGGTG TCACAGACCT GCAAGTCTG 720
      ACTGTCCAGG TAACAGATGT GAAAGAGCCA CCTCAGTTTC AAGGCACTT GGCAGAGAT 780
      CATCTCCGTG CAGACCCAGC ACATTTCAAT GCTCATAGTC ACACGTACGT GAGGGTAGTG 840
55     GCTACTGCTT TGGCCAGGCA CAGGCTTAGA TCTAGCATTG GTTCCCTTGT CTTGGGCAAC 900
      TTCTGTGTTG TGGTGGGCTG CGAGTATTTT CTGATTTC CTCCAAAGAG CTTGAGATG 960
      TCTGCTAATG GCACCTCTT CTCCACAACA GAATTGGACT TTGAAGCAGG ACACAGAGT 1020
      TTCCATCTCA TCGTGGAGGT GAGGGACAGT GAGGCGCTCA AAGCTTCCAC AGAGCTCCAG 1080
      GTGAACATCG TGAACCTCAA CGACGAAGTC CCTGGCTTTA CCAGCCGAC ACAGTGTAC 1140
60     ACAGTCTTGG AGGAACCTGAG TCCAGGAACC ATCGTGGCCA ATATCACAGG GAGGATCCT 1200
      GATGATGAAG GTTTTCCAG CCACTCTCTC TACAGCATTA CCACTGTAG CAATATTTT 1260
      ATGATAAATC AGTTGACTGG TACAATCCAA GTGGCCCAA GATAGACCG AGATGCAGGT 1320
      GAATTGAGAC AAAATCCAC CATTTCCCTG GAAGTTCTAG TGAAGGACG ACCATATGGG 1380
      GGTGAGGAGA ATCCCATCCA GATAACCTTC ATTTGGAAG AGGTCAAGA CAATCTGCC 1440
65     ACATGCCAAA AGTTCACCTT CAGATCCAGT CTCCACCTG CTCTGTGCTC CAAGAGCTG 1500
      ACCTGGATGG ATACGTATT AGACTGTTT CATGCTGCTG ATAAAGATAT ACCTGTGACT 1560
      GGGCAATTTA CAAAGAAAG AGGTTTAAT GGACTTACG TTCCCATGG CTGGGGAAGC 1620
      CTCACATCA TGGCAGAGG CAAGGAGGAG CAAGTCACAT CTTACATGGA TGGCAGCAGG 1680
      CAAGAGATA GAGCTTGTGT AGGGAACCTC CTCTTATTA AGCCATCAGA TCTCATGAGA 1740
70     CTTAGTCACT ATCAGAGAA CAACTCAGGA AAGACTTGCC CCAATGATT CATTTCTCT 1800
      TACCAGTCC CTCCACAAC ATGTAGGAT TCAAGATCC AGGCCACCA CAAAGAGAC 1860
      ACAGCTCTG TCACTGTAC TGTGAACATC CTTGAAGAAA ATGATGAAA GCCAATTGT 1920
      ACTCAAACT CTTATTTCCT GGCCTTCCA GTGGATCTGA AAGTTGGCAC AAATATTGAG 1980
      AATTTCAGC TGACATGTAC CGACCTTGAT TCCAGCCCCA GATCTTTCG TTATTCCATT 2040
75     GGCCAGGTA CGTCAACAA TCATTTCACC TTCTCTCCA ATGCTGGTT CAAATGCACA 2100
      CGCTGTCTG TTACATCTCG CTTGACTAT GCTGGTGGT TTGATAAGAT CTGGGACTAC 2160
      AAGCTACTG TCTACGTAC TGTGACAC TTAGTGTCTG ACAGGAAGAA AGCGGAGGT 2220
      CTTGTGAGA CAGGAACAGT GACACTGAGT ATTAAGTCA TTCCCCACC AACCATATC 2280
80     ATCACCACGA CCCCAGGCC CAGGGTCACC TATCAGGTCC TGAGGAANA CGTTTACTCT 2340
      CCACTGACT GGTACGTGCC GTTTGTATC ACTTGGGCT CCATATGCT TCTGGGTCT 2400
      CTGTGTACC TGTGTCTCT ATTGGCCAAA GCCATCCACA GACACTGCC CTGCAAGACT 2460
      GGGAGAGACA AGCAACCTCT GACAAAGAAA GAGAAACGA AGACTGAGA GAGAGAGCTC 2520
      GTGGTGGAAA CTATCCAGAT GAACACTATC TTTGATGGAG AAGCCATAGA TCCAGAGCCT 2580
      GAGCAAGCTT CACTCAGCT CTATGCCCTG CTGCCAGCT CCGGACACC TAGTCCAGTA 2640
      ACCCTAAGAA AGTCCAGGT GTGTGGGAG AGTGAAGAGA CCGTCAAGT TTCGGCCAC 2700

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ATCACACTTC CGGCAAGAT TCCAGTCGAT GACCCAAAGG AACAGGAAAC AGGCGTGCAG 2760
 GGTGATTTCC AGGCTGAGC TCTATGCCCC GCTGTGAAGG TGGTTGTAGG CAGCCCTCAA 2820
 GCTGAACGGT GCATTGCGATT GGCTCTCAGT CTGAAAAAGT ACAGTTCTGA TTAA 2874

5

Seq ID NO: C64 DNA Sequence
 Nucleic Acid Accession #: KM_168571.1
 Coding sequence: 155..988

10 1 11 21 31 41 51
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 CCTGATGATG AAGGTTTTCC CAGCCACCTC CTCTACAGCA TTACCCTGCT TAGCAAAATAT 120
 TTCATGATAA ATCAGTTGAC TGGTACAATC CAAGTGGCCC AAAGGATAGA CCGAGATGCA 180
 15 GGTGAATTGA GACAAATCC CACCATTTC CTGGAAGTTC TAGTGAAGGA CAGACCATAT 240
 GGGGGTCAGG AGAATCGCAT CACAGATAACC TTCATTGTGG AAGACGTCAA CGACAATCCT 300
 GCCACATGCC AAAAGTTTAC CTTCAGCATT ATGGTGCCGG AAGAAGACAGC CAAGGGGACG 360
 TTGCTTCTTG ACCIAAACAA GTTCTGCTTT GATGATGACA GTGAGGCACC AAACAACAGA 420
 TTCAACTTCA CCATGCCATC TGGAGTGGGG AGCGGCAGCA GATTTTACA GGATCCAGCT 480
 GGCTCTGGGA AGATTGTGCT GATTGGTGT CTAGACTACG AAAATCCAAG TAACCTAGCA 540
 20 GCCGGCATA AATATACGGT GATTAATCCAG GTGCAGGATG TGGCCCCCCC TTAATAATAA 600
 AATAACGTCT ACGTTTATAT CCTAACACAG CCAGAAAATG AGTTTCTCTT CATTTTGTAT 660
 AGGCCATTCCT ATGTATTGTA TGTGTGAGAA AGAAGGCCCG CCCAGGGTCA CCTATCAGGT 720
 CCTGAGGAAA AACGTTTACT CTCCATCTGC ATGGTACGTG CCGTTTGTCA TCACCTTGGG 780
 CTCCATATTG CTTCGGGTG TCTCGTGTGA CTGCTGCTC CTATTGGCCA AAGCCATCCA 840
 25 CAGACACTGC CCTGCAAGA CTGGGAAGAA CAAGGAACCT CTGACAAAGA AAGGAGAAAC 900
 GAAGACTGCA GAGAGAGACG TCGTGGTGGG AACTATCCAG ATGAACACTA TCCTTGTATG 960
 AGAAGCCATA GATCCAGTGA CCGGGGAAGC ATATGAATTC AACTCAAAAA CTGGAGCCAG 1020
 AAAGTGGAAA GATCCACTAA CCCAAATGCC AAAATGGAAA GAGTCCAGCC ACCAGGGAGC 1080
 TGCCCCAGCG AGAGTCACTG CTGGGGAAGG GATGGGGTCA CTGAGAAGTG CCAACTGGGA 1140
 30 AGAAGATGAG CTGAGTGGCA AAGCGTGGGC TGAGGATGCT GGTCTGGGTT CCAGAAATGA 1200
 GGGTGGCAAG CTGGGCAACC CAAAGAACAG AAATCCAGCC TTCATGAACA GGGCTTACCC 1260
 CAAACACAC CAGGAAAGT AAACGGGGTC TAAGGAGGGG CCGTCAATC ACTGAGATGC 1320
 TGCTTCAACC TAAATTTCTT GGGGATGGTG TGGGCATGGT GTAGGGGGGA AAATGTGGGC 1380
 TGAGGGGATT CAGACATCCA GGGTCAAACA TGGGATGTTT GACAAATTTT TAAACAATA 1440
 35 GAAAGGGGTT TGATCATAA GTTGGGTGTT CTGAAATGAT ACAGGAACAT TTTCTATCAG 1500
 ATTTCAAGAC TACCTGTGCT TCTGATAAGC AAGACTGTTA ACTTTGGGGT GTGGAATTGT 1560
 TGTGTTCTTT CTTCCTATTG ACTGCTAGGA AGCTCTATTC TGTTCAACAT AGAAGATTGT 1620
 TAGGAATTCC TGACATAAAT AGTAAAGACT ATCCTTACAT CTGGTTTCCA CCTTATTTTC 1680
 CTGCCCTGGT TTAAACATCA CCGCATTTTC TTCAATTATA AATATGCCAT ACCTCTTTGT 1740
 40 AAGTCACCTC AATCTTCTTT CAAAGGAAGC AGAACAGTGA AAAAAACAGA TGAGTAAGTT 1800
 AAGAGTTGGT CATCTGGAAA GAAGAAAACCT CAGTAGGCAC CTTCCTTTGT TTTTCTTGT 1860
 GGTGTCGGGA TCAGCATCCT GCATGTGAGA TTCATCCACG TTGTCTGTGC TAGCAGTAGT 1920
 TCAGTTCTCT TCATGTTTAT GTCTGGTTTC ATCTATGAT TATATCAAA TTTATCTATT 1980
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 45 ACTACAGGCA GGCATGATG GCTCATGCC TTAATGCCAG CACTTTGCCA AGGTGGGCAG 2100
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 TAAAAAATAC AAAAAATAGC TTGGTGTGGT GGTGGGCACA TGTAAATCCA GCTACTTGGG 2220
 AAGCTGAGGT AGGGAGAACT GCTTAAACCT GAGAGGTGGA GGTACAGTG AGTTGAGATT 2280
 50 GTGCCACTGC ACTCTAGCCT GGGTGACAAA GCAAGACTCC ATCTCAGAAA AAAAAAATA 2340
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Seq ID NO: C65 DNA Sequence
 Nucleic Acid Accession #: NM_005266.3
 Coding sequence: 122..1198

55

1 11 21 31 41 51
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 60 GATGGGCGAT TGGAGCTTCC TGGGAAATTT CCTGGAGGAA GTACACAAGC ACTCGACCGT 180
 GGTAGGCAAG GTCTGGCTCA CTGTCTCTTT CATATTCCTG ATGCTCGTGC TGGGCACAGC 240
 TGCTGAGTCT TCCCTGGGGG ATGAGCAGGC TGATTTCGG TGTGATACGA TTCAGCCTGG 300
 CTGCCAGAAAT GTCTGCTACG ACCAGGCTTT CCCCATCTCC CACATTCCGT ACTGGGTGCT 360
 GCAGATCATC TTGCTCTCCA CCGCTCTCT GTGTACATG GGCCAGGCCA TGACACATGT 420
 65 GGCATGTCAG GAGAGAGCCA AGCTACGGGA GGCCGAGAGG GCCAAGAGG TCCCGGGCTC 480
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 CACCAACATG GAGTGGGGCT TCATTGTGGG CCACTACTTC ATCTACGGA TCTTCTGAC 660
 CACCTTGCAT GTCTGCGSCA GGAGTCCCTG TCCCAACCG GTCACTGTT ACGTATCCG 720
 70 GCCACAGAG AAGATGTCT TCATTGTCTT TATGCTGGCT GTGGCTGCAC TGTCCCTCCT 780
 CCTTAGCCTG GCTGAACCTC ACCACCTGGG CTGGAAGAG ATCAGACAGC GATTTGTCAA 840
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 CTGCACACCA CCCCCGACT TTAATCAGTG CCTGGAGAA GTCCCTGGGG GAAATTCCT 960
 CAATCCCTTC AACTGATATA TGGCTTCCCA ACAAACACA GACAACCTGG TCACCGAGCA 1020
 75 AGTACGAGGT CAGGAGCAGA CTCTGGGGA AGGTTTCATC CAGGTTCTGT ATGBCAGAA 1080
 GCCTGAGGTG CCCAATGGAG TCTCACCAGG TCACCGCCTT CCCCATGGCT ATCATAGTGA 1140
 CAGGCGAGCT CTTAGTAAGG CCAGCGCAA GGCAAGGTCA GATGACCTAT CAGTGTGACC 1200
 CTCTTTATG GAGGAGTCAG GACCAGGTGG GAACAAAGGA GGCTCAGAGA GGAAAGAGCT 1260
 80 GTCCCTCTG AACTGATGCT TTCTCACTGT CATCACTGCT TGGCTCCTTT GAGCCCGGG 1320
 TCTCAATGAC GTTGCTCAT TATTCTAGAA ACTATAACCA GGGCTCTGGG ATAGTAAGAG 1380
 AGGTGACAA CCAACAGAGC TGCAGTCCC TCCCCACCT CTACCCAGTA TACGAAGCCT 1440
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 GCGTTCTCTA AGTTCTTACC TCCTTGACCT GATCACTCTC CTOCTCCAA GGAAGAGCTC 1620

| | | | | | | | |
|----|------------|-------------|------------|-------------|------------|-------------|------|
| 5 | AAAGTTCCCA | GCCAAATAGAC | AGCATGAATC | AAGGAACCTG | CATTATATGT | GCTCTTGAAT | 1680 |
| | CTGTGTCTTC | CATGACCAAT | TCCTCGGAGT | AGTGGTGAGA | TGGCCTTGGG | TTGCCCTTGG | 1740 |
| | CTTCTCCTCC | CTCTACTCAG | CCCTAAAAAG | GGCTTCTTGG | AACCTTACCA | GCAGCCTCAG | 1800 |
| | CTTTACAAAT | GCCTTGGTAT | GTACCTCTGG | CAAAATGCCCT | GGTATGTACC | TCTGGCAAAAT | 1860 |
| | GCCCCACCTT | GGTATGTGTG | CAACCTTTCC | TTCTGCTAGG | GTGTACACCT | AGCCTGTGCA | 1920 |
| | GGTGTACGCC | CTGCTAGGGA | GTCACTGTAC | ACACAAACTC | TACTGGAATT | CCTGCCAACA | 1980 |
| | TCTGTACCCC | TGCAGCTCCT | TTACAGTTCA | ATCCAATGAT | AGAAACCATC | CCTTCCCTTT | 2040 |
| | CTCCCTTGGC | TGTTACCCCA | GCCATTCCCT | GAAGGCCTTA | CCAACAGGAA | TATCCAGGAA | 2100 |
| 10 | GCTGTGTGTC | TCTCTCGAAC | CCTGACCAGA | TCATCAGCCA | CTGAGGCCAG | TGGAATTTCC | 2160 |
| | CCAGGCCTTG | TTAAAAAATA | AAAAAATAAA | | | | 2190 |

Seq ID NO: C66 DNA Sequence
Nucleic Acid Accession #: NM_014459.2
Coding sequence: 738..3407

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| 20 | GCAGCAAAAC | ACTGCTTGAA | AACAGACCCG | CCCGCGCAGC | AAGCAGACAT | TTCAOGGTGC | 120 |
| | GCCTGGGAAG | CTTCAAAATA | TATCTGTGAC | TCTGTCTTCG | TTGCTCTTCA | TCCCCATCAA | 180 |
| | TTTCATCAAG | GGAGCGGAGC | AGCAAGTAAG | AATTTCACTT | TGGATCTTGC | CTAGAGACAC | 240 |
| | ACCTCCCTGC | TCCCTCCCCC | ACTCGATGTG | AAGAGTATTC | CGGATCTCTC | GGGCGGGAGT | 300 |
| | AGATTGTGAG | CACCTTAGCG | GGAGCGAGGA | AAACCTACTG | ATTCTTTAGC | TCATTATCAT | 360 |
| 25 | CTCTCCCAAG | CGAGATTTC | TTCTTATGCG | CTGCTCTCAT | GCTCAAGTTT | GAGCCTCCCG | 420 |
| | AAGTCCGGGC | GGGAGAGACG | AAACCCCTGG | CTCACCCCCA | GCCGCAGGAA | GCCACCGCCT | 480 |
| | TGCTCCAAAG | CCCTGACAGT | CTGCTGCACC | GCAGCTTCTC | ACCCAGTTCG | GATGCTGTAG | 540 |
| | ATCAACAGAT | TCAGGGAACT | TGAGCAGAA | AAGGAGAGAC | CACCGGGTGC | CGCAGCTCGG | 600 |
| | GTGCAGAGGG | AAAAAAGGAC | CCATAGACTT | GTGGCTCGCG | TCGCGCGCGC | ACGCTGCGCC | 660 |
| 30 | AGGGCCCCAG | CTGGCGCGCG | ACTCCCTCTC | TGGCTCCTCC | AGTCCGATTG | CTCTGCCCC | 720 |
| | CACCTTACAG | GTCTGGGATG | TACCTTTCCA | TCTGTGCTCG | CTTCTTCTTA | TGGGCCCTCG | 780 |
| | CCCTCACTCT | CAAGAACTCT | AACTACTTCG | TGCCGGAGGA | GCAAGGGGCC | GGCACGGTGA | 840 |
| | TCCGGAAACAT | CGGAGGGGAT | GCTCGACTGC | AGCCTGGGCT | TCCGCTTGCA | GAGCGCGGCG | 900 |
| | GCGGAGGGCG | CAGCAGTTCG | GGTAGCTACC | GGGTGCTGGA | GAACCTCCGA | CGGCACCTGC | 960 |
| 35 | TGGAGTGAAG | GCAGAGACGC | GGGCTCCTCT | ACACCAAGCA | GCGCATTCGAC | CGCAGTCCC | 1020 |
| | TGTGCCGCCA | CAATGCCAAG | TGCCAGCTGT | COCTCGAGGT | GTTCGCCAAC | GACAAGGAGA | 1080 |
| | TCTGCATGAT | CAAGGTAGAG | ATCCAGGACA | TCAACGACAA | CGCGCCCTCC | TTCTCCTCGG | 1140 |
| | ACCAGATCGA | AATCGATATC | TCCGAGAAAG | CTGCTCCCGG | CACCGCTTTC | CCCTCAACCA | 1200 |
| | GCGCACATGA | CCCCGAGCCC | GGCGAGAAATG | GGCTCCGCAC | CTAOCCTGCT | AOGCGCGAAG | 1260 |
| 40 | ATCACCGGCT | CTTTGGACTG | GACGTAAAGT | CCCGCGGCGA | CGGCAACCAAG | TTCCACGAAC | 1320 |
| | TGGTCATCCA | GAAGGCTCTG | GACCGCGAGC | AACAGAAATCA | CCATACGCTC | GTGCTGACTG | 1380 |
| | COCTGGACGG | TGGGAGGCGT | CCACGTTCCG | CCACCGTACA | GATCAACGTG | AAGGTGATTG | 1440 |
| | ACTCCAACGA | CAACAGGCCG | GTCTTCGAGG | CGCCATCCTA | CTTGGTGGAA | CTGCCCGAGA | 1500 |
| | ACGCTCGGCT | GGGTACAGTG | GTCAATCGATC | TGAAGCCAC | CGACGCGGAT | GAAGTCCCA | 1560 |
| 45 | ATGGTGAAGT | GCTCTACTCT | TTCAAGAGCT | ACGTGCTTGA | CCGCGTGGCG | GAGCTCTTCT | 1620 |
| | CCATCGACCC | CAAGACCGGC | CTAATCCGTC | TGAAGGGCAA | TCTGGACTAT | GAGGAAAACG | 1680 |
| | GGATGCTGGA | GATTGACGTG | CAGGCGCGAG | ACCTGGGGCC | TAACCTTATC | CCAGCCCATC | 1740 |
| | GCAAGTCTAC | GGTCAAGCTC | ATCGACCGCA | ACGACAATGC | GCGCTCCATC | GGTTTGGCTC | 1800 |
| | CCGTGCGCCA | GGGGCGGCTG | AGCGAGGCGG | CCCTCCCGCG | CACCGTCACT | GCCTGGGTGC | 1860 |
| 50 | GGGTCACTGA | GCTCACTCTC | GGCAAGAAACG | GACAGCTGCA | GTGTGCGGTC | CTAGGCGGAG | 1920 |
| | GAGGGACGGG | CGCGCGGCGG | GGCTGCGGCG | GGCCCGGGGG | TTCCGTCCCC | TTCAAGCTTG | 1980 |
| | AGGAGAACTA | CGACAACCTC | TACACGCTGG | TGACTGACCG | CCCGCTGGAC | CGCGAGACAC | 2040 |
| | AAGAAGAGTA | AGTCAAGTAC | ATCGTGCGCG | GGGACGGGGG | CTCTCCCTCC | CTCAACTCCA | 2100 |
| | CCAAAGTCGT | CGCGATCAAG | ATTCTAGACG | AGAAAGACAA | CCCGCCTCGG | TTCAACAAAG | 2160 |
| 55 | GGCTCTACGT | GCTTCAGTGC | CACGAGAAAC | ACATCCCGGG | AGAGTACCTG | GGCTCTGTGC | 2220 |
| | TGCGCCAGGA | TCCCGACCTG | GGCCAGAAACG | GCACCGTATC | CTACTCTATC | CTGCCCTCGC | 2280 |
| | ACATGGCGCA | CGTGTCTATC | TACACCTATG | TGCTGTGAA | TCCCAAGAAC | GGGGCCATCT | 2340 |
| | ACGCCCCGCG | CTCCTTTAAC | TTCGAGCAGA | CCAAGGCTTT | TGAGTTCAAG | GTGCTTGCTA | 2400 |
| | AGGACTCGGG | GGCGCCCGCG | CACCTGGAGA | GCAAGCCAC | GGTGAGGGTG | ACAGTGTCTG | 2460 |
| 60 | AGTGAATGA | CAACGCGCCA | GTGATCGTGC | TCCCAACGCT | GCAAGACGAC | ACCGCGGAG | 2520 |
| | TGCAGGTGCC | GCGCAACGCT | GGCTGGGGCT | ATCTGGTGGG | CACGTGTGCG | GGCCTAGACA | 2580 |
| | GCGACTTCGG | CGAGAGCGGG | CGTCTCACCT | ACGAGATCGT | GGAGGGCAAC | GACGACCAAC | 2640 |
| | TGTTTGAGAT | CGACCCGCTC | AGCGCGGAGA | TCCGCAAGCT | GCACCTTTC | TGGGAGGAGG | 2700 |
| | TGAOCCCGGT | GGTGGAGCTG | GTGGTGAAGG | TGACCGACCA | CGGCAAGCCT | ACCTGTCCG | 2760 |
| 65 | CAGTGGCCAA | GCTCATCATC | CGCTCGGTGA | GCGATCCCT | TCCCGAGGGG | GTACCAAGGG | 2820 |
| | TGAATGGCGA | CGAGCAACAC | TGGGACATGT | CGCTGCGGCT | CATCGTGAAT | CTGAGCACTA | 2880 |
| | TCCTCATCAT | CTCTCTAGCG | GCCATGATCA | CCATCGCCGT | CAAGTGCAAG | CGCGAGAAC | 2940 |
| | AGGAGATCCG | CACCTTACAAC | TGCCGATCGG | CCGAGTACAG | CCACCCGCG | CTGGGTGGGG | 3000 |
| | GCAGGGGCAA | GAAGAGAGAG | ATCAACAAAA | ATGATATCAT | GCTGGTGCAG | AGCGAGGTGG | 3060 |
| 70 | AGGAGAGGAA | CGCCATGAAC | GTCAATGAAC | TGGTGAGCAG | CCCTCCCTCG | GCCACCTGCC | 3120 |
| | CCATGTACTT | CGACTACGAG | ACCGGCTGCG | CGCTCAGCTC | GCCCGGCTCG | GAGGTGATGT | 3180 |
| | ATCTCAAAAC | GGCTTCACAC | AACCTGACTG | TCCCTCAGGG | GCACGCGGGC | TGCCACACCA | 3240 |
| | GCTTCACCGG | ACAGGGGATC | AATGCAAGCG | AGACCCCTGC | CACCTCGGATG | TCCATAATTC | 3300 |
| | AGACAGACAA | TTTTCCCGCA | GAGCCCAATT | ACATGGGCGG | CAGGCAGCAG | TTTGTTCAAA | 3360 |
| 75 | GTAATTCAGT | AGCTCCACGT | TTAAGGACCC | AGAAAGAGCC | AGCCTGAGAG | ACAGTGGGCA | 3420 |
| | CGGGGACAGT | GATCAGGCTG | ACAGTGACCA | AGACACTAAC | AAAGGCTCCT | GCTGTGACAT | 3480 |
| | GTCTGTTAGG | GAGGCATCTA | AGATGAAAC | TACTTCAACT | AAAAGCCATC | CACCTGAACA | 3540 |
| | AGAACCCAGAA | GAGTGTGTTA | ATTGCACAGA | TGAATGCCGA | GTGCTTGGTC | ATTCTGACAG | 3600 |
| | GTGCTGGATG | CCACAGTTC | CTGCAGCCAA | TCAGGCTGAA | AATGCAGATT | ACCGCACAAA | 3660 |
| 80 | TCTCTTTGTA | AGCTCAAGTG | AAGCTAATGT | TGAGACTGAG | ACTTACGAAA | CTGTGAATCC | 3720 |
| | CACCTGGGAA | AAGACTTTTT | GTACATTTGG | AAAGGACAA | CGAGAGCACA | CTATTCTCAT | 3780 |
| | TGCCAACGTT | AAACCTTATT | TAAAGCCAA | AGTGGCCCTG | AGCCCTCTCC | TCCAGAGGT | 3840 |
| | CCCTCTAGCA | TCAAGCAGCC | CAACCAAGGC | GTGCTCGAG | CCTTCACCT | CAACAAAGG | 3900 |
| | CTCCCTGGAT | GCTGTGTAAG | CAAAACCAAG | AGCCCTGGCT | GAAGCAGACA | GTCACTACTT | 3960 |
| | GCCCACTGAC | AGTCAATATC | TGTCACCTAG | TAAGCAACCA | AGAGACCGTC | CCCTCATGGC | 4020 |

5 TCCGATCG ATGGCAAGGG TCTTGCAGA TGTGCATTCC AGAGCCAGCC GGGATTCCAG 4080
 TGAGATGGGT GCTGTCTTTG AGCAGCTTGA CCACCCCAAC AGGGATCTGG GCAGAGAGTC 4140
 TGTGGATGCA GAGGAAGTTG TGAGAGAAAT TGATAAGCTT TTGCAAGACT CCGGGGAAAA 4200
 CGACCCCTGTG GCTGTGAGAA AGTGAAAAAA GAAAAAAGAA AAGGCATTGG CATTTTCTTG 4260
 TCTCTTCTGT TGATTTAAAA ATGATCCCTC CTGGTGATAA CCCATTTTAC AGGGATGAAG 4320
 AAAGACCAAT GCTGCTTTAA GGCCTTTAGT GAACATCTGA AGTGCCCAAC AGTATGTTCT 4380
 TTCCACTGCT GATTTCTTTT TCAGAGATAA CAATGGTTTC GTTTTGACCA AACTTGATT 4440
 AGGACAGAAT TAATGATGCT TAAAGAGAAA AGAAAAAAG AGAGAAGAAA AAGGAGAGAT 4500
 GAAAAAGGAG GATGAGGAGA AGAATTACCT TTTGACAATC TGTAGGAAG GTATGCAGTG 4560
 10 TGAGAACTGA AGTATTTCTG ATCACTCTCA GACTGTCTCT CGTGATTTAT GCTGACTTAA 4620
 CTGTTTACCT ATAAACCCCA TACAAAGCAG GGTCAATAAT TGTGATCTGT GGTGGATTTC 4680
 TAGCAGTCAT CACAGGCTTC TACTGAAAGT CCTGAAAAGA CCTGCACTA GTCCAAGCTA 4740
 CACCAACAT TAACACATAT TTGTGGTAAA CATTTCTGTA TAAAGTTACC TGACACACAT 4800
 15 ATAAACACAA GGAACATTCC ATATCATTAG TCGAAAACAA AAACAAAAAA AAAACCTTTG 4860
 GTCAATTGTA AGACATCTCA TGTCAIATAA AAGTTAAATG TAAAAAGATA CAGTCCATTT 4920
 TGTCTGCAC ACACGTAGAC TAATTCACGT CAAAAAAGAA AAAAAA 4966

Seq ID NO: C67 DNA Sequence

Nucleic Acid Accession #: NM_005601.2

Coding sequence: 101..598

20 1 11 21 31 41 51
 CCCAGGAGTC TGGGTGCACA GCCTCCTTCT CTCGAGATT CAAGAGTCTG ATCAGCAGCC 60
 TCTTCTCTCT CCAGGACCCA GAAGCCCTGA GCTTATCCCC ATGGAGCTCT GCCGGTCCCT 120
 GGGCCTGCTG GGGGGCTCCC TGGGCCTGAT GTTCTGCTGT ATTGCTTTGA GCACCGATT 180
 CTGGTTTGA GCTGTGGGTC CCACCCACTC AGCTCACTCG GGCCTCTGGC CAACAGGGCA 240
 TGGGGACATC ATATCAGGCT ACATCCACGT GACGCAAGCC TTGAGCATT TGGCTGTCT 300
 30 GTGGGCCCTG GTGTCCGTGA GCTTCTGTGT CTTGCTCTGC TTCCCTCTAC TGTTCCTCCC 360
 AGGCCACGGC CGGCTGTCT CAACCAACGC AGCCTTTGCT GCAGCCATCT CCATGGTGGT 420
 GGCCATGGCG GTGTACACCA GCGAGCGGTG GGACCAAGCT CCACACCCCC AGATCCAGAC 480
 CTCTCTCTCC TGGTCTCTCT ACCTGGGCTG GGTCTCAGCT ATCCTCTTGC TCTGTACAGG 540
 TGCCCTGAGC CTGGGTGCTC ACTGTGGCGG TCCCTGCTCT GGCTATGAAA CCTGTGAGC 600
 35 AGAAGGCAAG AGCGGCAAGA TGAGTTTGA GCGTTGTATT CCAAGGCTCT CATCTGAGC 660
 CTGGGGAAG TCTGTCTCTA CATTTGCCCG CCCTTCCAGC CCTTCCCCAG CCCCTCTCT 720
 TGTCTCTCTA TTCAATCAAC AAAATTGTGC TGGAAAAAA AAAAAAATA AAAAAAATA 780
 AAA 783

Seq ID NO: C68 DNA Sequence

Nucleic Acid Accession #: NM_006433.2

Coding sequence: 129..566

40 1 11 21 31 41 51
 GTATCTGTGG TAACCCAGT GACACGGGG AGATGACATA CAAAAAGGCG AGGACCTGAG 60
 AAAGATTAAG CTGAGGCTC CCGTCCATA AAACAGGGTG TGAAAGGCAT CTCAGCGGCT 120
 GCCCCACCAT GGCTACCTCG GCCCTCTCTG TCCTTGCAAG CATGCTCTCG GGCACCCGCT 180
 50 GTCTGTCTCT CTCTGTCTCT AGCCCTGAGT ACTACGACCT GGCAAGAGCG CACTGCTGTG 240
 ATGAGGAGAA ATCTGCTCCG TGCTGTGGCC AGGAGGGCCC CCAGGGTGAC CTGTTGACCA 300
 AAACACAGGA GCTGGGCGGT GACTACAGGA CCGTCTGAC GATAGTCCAA AAACCTGAAGA 360
 AGATGTGGTA TAAGCTCCAC CAGAGAGATG TTTCCATATG TCCGACCCCG GTGTGTAGGA 420
 CGGGAGGCTC ACATGCGGCG GACGCTGTGA GAAATTTAT GAGGAGGTAT CAGCTAGAG 480
 55 TTACCCAGGG CCTGCTGGCC GAGGAAACTG CCGAGCAGAT CTGTGAGGAG CTCAGTTGT 540
 GTATACCTTC TACAGGTCCC CTCTGAGGCC TCTACCTTGT TCTGTGTGAA GAACACAGG 600
 CTCTGTCTCT CAGATCCCGG GAACCTCAGC AACCTCTGCC GGCTCTCTCG TTCTCTGATC 660
 CAGATCCAC TCTCAGTCT CCTCCCTCG ACTCCCTCTG CTGTCTCTCC CTCTCAGGAG 720
 AATAAGTGT CAGCAAG 738

Seq ID NO: C69 DNA Sequence

Nucleic Acid Accession #: NM_002985.2

Coding sequence: 69..344

65 1 11 21 31 41 51
 GCTGCAGAGG ATCTCTGCG AGGATCAAGA CAGCAGTGG ACCTGACACA GCCTCTCCCA 60
 CAGGTACCAT GAAGGTCTCC GGGGAGGCC TGGCTGTCT CCTATTGCT ACTGCTCTCT 120
 GGGCTCTGTC ATCTGCTCTC CCATATTCTT CCGACACCAC ACCCTGCTGC TTTGCTTACA 180
 70 TTGCGCGGCC ACTGCGCGGT GCCACATCA AGGAGTATTT CTACACCACT GGCAGTGTCT 240
 CCAACCCAGC AGTCTCTTT GTCAACCGAA AGAACCCCA AGTGTGTGCC AACCCAGAGA 300
 AGAATGGGT TGGGAGTATC ATCAACTCTT TGGAGATGAG CTAGGATGGA GAGTCTTTGA 360
 ACTGAACTT ACACAAATTT GCCTGTTTCT GCTGTCTCT GTCCCTAGCT GGGAGGCTTC 420
 CCCTCACTAT CCTACCCAC CCGCTCTTGT AAGGGCCAG ATCTTACCAC ACAGCAGCAG 480
 75 TTACAAAAC CTTCGCCAGG CTGGAGGTGG TGGCTCAGC CTGTAATCCC AGCACTTTGG 540
 GAGGCCAAGG TGGGTGGATC ACTTGAGGTC AGGAGTTCGA GACCAGCTCG GCCAACATGA 600
 TGAAACCCCA TCTCTACTAA AAATACAAA AATTAGCCGG GGTGTGTAGC GGGCGCTGT 660
 AGTCCAGCT ACTGGGAGG CTGAGGCAGG AGAATGGCGT GAAACCCGGA GGCAGGCTCT 720
 GCACTGAGCC GAGATGCGCC CACTGCATTC CAGCCTGGGC GACAGAGCGA GACTCCGTCT 780
 80 CAAAAAATA AAAAAAATA AAAATACAA AATTAGCCGG GGTGTGTGGC CCAAGCTGT 840
 AATCCAGCT ACTCGGAGG CTAAGGCAGG AAAATTGTTT GAACCCAGGA GGTGGAGGCT 900
 GCACTGAGCT GAGATTGTGC CACTTCACTC CAGCCTGGGT GACAAAGTGA GACTCCGTCA 960
 CAACAACAC AACAAAAAGC TTCCCAACT AAAGCCTAGA AGAGCTCTG AGGCGCTGCT 1020
 TTGTCAAAAG GAAGTCTCTA GGTCTGAGC TCTGGCTTTG CCTTGGCTTT GCCAGGGCTC 1080

TGTGACCCAGG AAGGAAGTCA GCATGCCTCT AGAGGCAAGG AGGGGAGGAA CACTGCACTC 1140
 TTAAGCTTCC GCCGTCTCAA CCCCTCACAG GAGCTTACTG GCAAAACATGA AAAATCGGCT 1200
 TACCATTAAA GTTCTCAATG CAACCATAAA AAAAAA 1237

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Seq ID NO: C70 DNA Sequence
 Nucleic Acid Accession #: NM_022154.2
 Coding sequence: 1381..1722

10

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|------|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| AGTGTGGTIT | TAGTTTTTCC | TAAGAAGTGG | CCTGGTTTGG | GGCTTTATAT | COGGGAGGAG | 60 |
| CATATGTACG | CAATCCTGG | GGCGTTTGCA | AACCCGGATC | CGGGGCGTCT | GGCCCCATGC | 120 |
| COGGCCGGGC | GTTTGAGGGC | TACTGOCACG | CAGCGTTTCT | GGAGCCTGCC | GGCTGGTGCC | 180 |
| CTGGTGGCCT | TTATCTCTGT | CCCCCTTTGT | CCTCTTTATC | TCAGGCCTTC | CAGGAGGCCG | 240 |
| GGGGGCCCAT | TCCGCCCTATC | GCTCCCTCTG | GCTACGCTGC | CACCTCCATG | CCCGGAGGCT | 300 |
| CGCGAGCTGC | TGTTCTTTTC | AAGGCGCCGG | AGAACCAGGG | GGCTCCCGCG | CCACCTCTGA | 360 |
| CTCGGAGCAG | CGCCGAGCAC | TGACGCTCCG | GCCCTTGGGC | AAGGACGCCA | GTGCGCCCGC | 420 |
| GGCGCTCCCT | CTCGCGGGCA | GCCGCTCGCG | GGCCCTCAAG | GGGAAGCCCA | GGCCAGGATG | 480 |
| GCCCCGGGTC | GCGCGGTGGC | CGGGCTCCTG | TGCTGGGGCG | CGCGCGGCTC | CAGGAGGAGT | 540 |
| GCGGAGGGCG | CAGGGCTAGC | CTTCAGCGAG | GATGTGCTGA | CGCTGTTCGG | CGCGAATCTG | 600 |
| AGCCTGTGCG | CGGCGCGAGT | CGAGCACTTG | CTGGAGCAGA | TGGGAGCGCG | CTCCCGCGTG | 660 |
| GGGCTCCCGG | AGCTTGGCCA | GCTGCACTTC | AACCACTGTT | TAACTGCTGA | AGAGATCTTT | 720 |
| TCCCTTCATG | GCTTTTCRAA | TGCTACCCCA | ATAACCAAGT | CCAATTTCTC | TGTCATCTGT | 780 |
| CCAGCAGTCT | TACAGCAATT | GAACTTTCAC | CCATGTGAGG | ATCGGCCCAA | GCACAAAACA | 840 |
| AGACCAAGTC | ATTGAGAGTT | TTGGGGATAT | GGATTCTCTG | CAGTGACGAT | TATTAACTCT | 900 |
| GACATCTTCC | CTAAGCAATT | TTTGAATCCA | CTGATAAAGA | AATCTTATTT | CCCAAGATTG | 960 |
| TTGAGCTTTT | TTGTGGGGCT | GGCTATTTGG | ACTCTTTTTC | CAATGCAAT | TTTCCAACIT | 1020 |
| ATTCCAGAGG | CAITTTGGAT | TGATCCCAAA | GTGACAGATT | ATGTTGAGAA | GGCAGTTGCT | 1080 |
| GTGTTTGGTG | GATTTTACCT | ACTTTTCTTT | TTTGAAGAGAA | TGCTAAAGAT | GTATTAAAG | 1140 |
| ACATATGGTC | AGATTTGTCA | TACCCACTTT | GGAAATGATA | ACTTTGGTCC | TCAAGAAAAA | 1200 |
| ACATCATCAAC | CTAAGCAATT | ACCTGCCATC | AATGGTGTGA | CATGCTATGC | AAATCCTGCT | 1260 |
| GTACAGAAAG | CTAATGGACA | TATCCATTTT | GATAATGTCA | GTGTGGTATC | TCTACAGGAT | 1320 |
| GGAAAAAAG | AGCCAGTTTC | ATGTACTCTG | TTGAAGGGGC | CCAATCTGTC | AGAAATAGCG | 1380 |
| ACGATTGCTC | GGATGATAAC | GCTCTGCGAT | GCCTTCCACA | ATTTCATCGA | TGGCCTGGCG | 1440 |
| ATTTGGGGCT | CCGTCACCTT | GTCTCTCCTT | CAGGGACTCA | GTACTTCCAT | AGCAATCCCTA | 1500 |
| TGTGAGGAGT | TTCGCCCGA | GTTAGGAGAC | TTTGTGATCC | TACTCAATGC | AGGGATGAGC | 1560 |
| ACTGACCAAG | CCTTGTCTAT | CAACTTCTCT | CTGCTATGTT | CCTGCTATGT | TGGGCTAGCT | 1620 |
| TTTGGCATT | TGGTGGGCHA | CAATTTCTGCT | CCAATATTTA | TATTTGCACT | TGCTGGAGGC | 1680 |
| ATGTTCTCT | ATATTTCTCT | GGCAGATATG | TTTCCAGAGA | TGAATGATAT | GCTGAGAGAA | 1740 |
| AAGTTAACTG | GAAAGAAAAA | CGATTTTACC | TTCTTCTATG | TTCAGAAATG | TGGAAATGTTA | 1800 |
| ACTGGAATCA | CAGCCATTCT | ACTCAATTACC | TTGTATGCGG | GAGAAATCGA | ATTGGAGTAA | 1860 |
| TAGAAAAATG | AAGATGGTGT | TGTTAATAAA | GGCAATTAAT | AGATAAAAAC | ATCTCCAAAA | 1920 |
| AGGATTTTGA | AGCTGATCCT | ATTAGTTTAA | AAAGATAATT | TGCTTTTCAA | CTGTAGGTCC | 1980 |
| AGAAACTTAA | TATTTGGCAT | CAGTCTGTGA | AATAGTCCAT | TATTTGTGTG | TAAAAATGCT | 2040 |
| TCAAAAGGTT | TTCAGTGCTA | GTCTGAGATG | CCTGGTATAT | AGGAGCCTTT | GGGAAATACT | 2100 |
| TATTTTTCAG | TATTTCCATG | ATATTAGATA | TCACCATGAA | GCAAGAGACA | TGCATTCTAT | 2160 |
| AATCATGTAG | ACACTCAGAC | TCAGGGGAAA | ATACAGTTTA | TATCTGAAA | GCCTTTAAAA | 2220 |
| CTCTATGTAG | GAGTCAAGAA | TTCAAATGGT | TTCAAGAGAG | TTTATTTTCA | ATTAAATTTG | 2280 |
| TCTAGTGCCT | TCAAGAGCAA | GTACATCAAA | ATGTAGAAGG | TAAATGTAT | GCAACACTAA | 2340 |
| TATAAATTTA | TCCAGTCTCT | TAAGGAGCCA | AGAAAAAATA | AGATTCTTCA | CAGCTTTTTC | 2400 |
| TTCTGTTTTC | TATTTCAATT | AGGAACCTGC | AGTATTATTT | TGAAAAACAT | TCTAAAAATA | 2460 |
| TAGGAGTTAG | GAAATAAATA | AAGTTTGTCT | AGCCCTGCTA | AGTTCAAGCT | TAGAGGCTTA | 2520 |
| TCGCTAAGTC | TAACTTCCAC | CAGATTCCAC | GAAAAGCTGG | ATAGCTTTTT | TTCTGACTTA | 2580 |
| TGTTTGGGTT | GCACCCCTCA | CAATGGGCAG | AACAGTATGT | AAAGCTGGTA | ACACCTCGGT | 2640 |
| TTCAAGTGCAC | CATGTGTTTG | CTTTGTGAAG | GTGAAGAATA | TGTTGGTTTA | GAGAAAGATA | 2700 |
| TTGGATGTAA | TTTTATGCAG | TTTACTTTTA | AAGACAAACA | TAACTATTTA | CCAGAGAAATA | 2760 |
| TTTTAATAAA | TCCAAACAAA | CAGCTGGACT | GCTGTACATC | AAGGACAGAT | TAACTGAAAA | 2820 |
| ACATAATGTC | CTTATGTGTG | ATTGAGAGCC | ATTGAGAAA | GACPTTCCTT | GTGTTGAGCC | 2880 |
| TATATCTTTC | CATATGGTAT | ACCTTGAAAA | AAATTAGCAC | ACCATGGTTA | TTTTTCTTACC | 2940 |
| TTTTATAAAA | GACAGAGCCT | GTCTTACTCAT | TTAGAGATA | GAGAAATTTG | GTCTAAATTT | 3000 |
| GAACATCCTA | GATTACACT | CCCAAGTCAC | TTAAGGTGAT | TTGATGGTGA | GGAAATGAT | 3060 |
| TGACAAAGCC | CAACAATGAT | CTCAGGATTT | ACATTTTCCA | ACAGACCAAA | AAATGPTTTC | 3120 |
| ATGTAGCAGC | AATGCAGATT | TGGTGAATAT | TAAATATATA | TTTTAGTATG | TATTTCACTT | 3180 |
| TATGACTGAC | AATTAATAAA | TATTTGTTGG | CCAAATAGTA | AACACCCCTT | TGAACCATG | 3240 |
| AAAAAA | | | | | | 3246 |

70

Seq ID NO: C71 DNA Sequence
 Nucleic Acid Accession #: NM_004184.2
 Coding sequence: 188..1603

75

| | | | | | | |
|-------------|-------------|------------|------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| CGAAAAAAGA | GGGGAAGAGT | ATTAAGAGCC | ATTCTGGGCT | GGGCAAGGCA | CTCTCAGCAG | 60 |
| CTCAACTGCC | CAGCGTGACC | AGTGGCCACC | TCTGAGTGT | CTTCCACAAC | CTGGTCTTGA | 120 |
| CTCGTCTGCT | GAAACAAATCC | TCTGACCTCA | GGCCGGCTGT | GAACTAGTGT | CCTGAGAGAT | 180 |
| AGCAAAACATG | CCCAACAGTG | AGCCCGGATC | TCTGCTGGAG | CTGTTCAACA | GCATCGGCCA | 240 |
| ACAAGGGGAG | CTCGTAAGGT | CCCTCAAGGC | GGGAAATGCG | TCAAAGGATG | AAATTGATTC | 300 |
| TGCAGTAAAG | ATGTTGGTGT | CATTAAAAAT | GAGCTACAAA | GCTGCGCGCG | GGGAGGATTA | 360 |
| CAAGGCTGAC | TGTCCTCCAG | GGAAACCCAG | ACCTACCACT | AATCATGGCC | CAGATGCCAC | 420 |
| AGAAGCTGAA | GAGGATTTTG | TGGACCCATG | GACAGTACAG | ACAAGCAGTG | CAAAAGGCAT | 480 |
| AGACTACGAT | AAGCTCATTT | TTCCGTTTGG | AAGTAGTAAA | ATTGACAAAG | AGCTAATAAA | 540 |
| CCGAATAGAG | AGAGCCACCG | GCCAAAGACC | ACAACACTTC | CTGCGCAGAG | GCATCTTCTT | 600 |

| | |
|----|---|
| 5 | CTCACACAGA GATATGAATC AGGTTCTTGA TGCCTATGAA AATAAGAAGC CATTITATCT 660 |
| | GTACADGGGC CGGGGCCCCCT CTCTGAAGC AATGCATGTA GGTCACTCA TTCCATTAT 720 |
| | TTTCAACAAG TGGCTCCAGG ATGTATTTAA CGTGCCCTTG GTCATCCAGA TGACGGATGA 780 |
| | CGAGAAGTAT CTGTGGGAAG ACCTGACCCCT GGACCAAGGCC TATGGCGATG CTGTGAGAA 840 |
| | TGCCAAGGAC ATCATCGCCT GTGGCTTTGA CATCAACAAG ACTTTCATAT TCTCTGACCT 900 |
| | GGACTACATG GGGATGAGCT CAGGTTTCTA CAAAATGTG GTGAAGATT AAAAGCATGT 960 |
| | TACCTTCAAC CAAGTGAAG GCATTTTCCG CTCTACTGAC AGCGACTGCA TTGGGAAGAT 1020 |
| | CAGTTTCTCT GCCATCCAGG CTGCTCCCTC CTTCAGCAAC TCATTCCAC AGATCTTCOG 1080 |
| 10 | AGACAGGACG GATATCCAGT GCCTTATCCC ATGTGCCATT GACCAAGATC CTTACTTTAG 1140 |
| | AATGACAAGG GACGTGCCCC CCAGGATCGG CTATCTTAAA CCAGCCCTGT TGCATCCAC 1200 |
| | CTTCTTCCCA GCCCTGCAGG GCGCCACAGC CAAAATGAGT GCCAGCGACC CAACTCTCTC 1260 |
| | CATCTTCTTC ACTCCACCGG CCAAGCAGAT CAAAACCAAG GTCAATAAGC ATGGCTTTTC 1320 |
| | TGGAGGGAGA GACACCATCG AGGAGCACAG GCAGTTTGGG GGCAACTGTG ATGTGGACGT 1380 |
| | GTCTTTCTATG TACTGACCT TCTTCTCGA GACACACGAC AAGCTCGAGC AGATCAGGAA 1440 |
| 15 | GGATTACACC AGCGGAGCCA TGCTCACCGG TGAGCTCAAG AAGGCACCTA TAGAGTTCT 1500 |
| | GCAGCCCTTG ATCGCAGAGC ACCAGGCCCG GCGCAAGGAG GTCACTGATG AGATAGTGAA 1560 |
| | AGAGTTCAAG ACTCCCGGA AGCTGTCCCT CCACTTTCAG TAGCACTCGT TTTACATAG 1620 |
| | CTTATAAAG AGAGTATGTA TCAGTAAATG ATCAATAATC CCAAGCCAGT CAAAGCACCG 1680 |
| | CCACCTGATG GCTTCTCTCT CATGGTAAT CTGGGCGCTG GCTCTGTAA GCTGTGTAT 1740 |
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Nucleic Acid Accession #: NM_004938.1
Coding sequence: 337..4632

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 Coding sequence: 45..878

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Seq ID NO: C75 DNA Sequence
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| | AACTTGAATG | TCACTCTCT | GGGCTTCCGA | TCCCTGAGG | AAATTAATGC | TGGGCGTATC | 1560 |
| 25 | TATATAAGTG | CCAATAGGCA | GCTCTGTCTC | CAOACTCTTT | TGAACCTGGC | CAAGGTGCTT | 1620 |
| | CGGGGGCTTA | CGGAGAGCGG | ACTAGACATC | AAGCATAATC | GGCGCGCGAG | AGACTGCGTG | 1680 |
| | GCAGAGGGCA | AAGTCTGTGA | CCCCTGTGTC | TCCTCTGGGG | GATGCTGGGG | CCCAAGGCGT | 1740 |
| | GGTCACTGCT | TGTCTCTGTG | AAATATATAG | CGAGGAGGTG | TCTGTGTGAC | CCACTGCAAC | 1800 |
| | TTCTTGAATG | GGGAGGCTCG | AGAATTGACC | CATGAGGCGG | AATGCTTCTC | TGCGCACCCG | 1860 |
| 30 | GAATGCCAAC | CCATGGGGGG | CACGTGCCAC | TGCAATGGCT | CGGGCTCTGA | TACTTGTGCT | 1920 |
| | CAATGTGCCC | ATTTTCGAGA | TGGGCCCCAC | TGTGTGAGCA | GCTGCCCCCA | TGGAGTCTTA | 1980 |
| | GGTGCCAAAG | GCCCAATCTA | CAAGTACCCA | GATGTTTACA | ATGAATGTGG | GCCTTGCCAT | 2040 |
| | GAGAACTGCA | CCCAAGGGTG | TAAAGGACCA | GAGCTTCAAG | ACTGTTTAGG | ACAAACACTG | 2100 |
| | GTGCTGATCG | GCAAAACCCA | TCTGACATG | GCTTTGACAG | TGATAGCAGG | ATTGGTAGTG | 2160 |
| 35 | ATTTTCATGA | TGCTGGGGGG | CACCTTTCTC | TACTTGGCTG | GGCGCCGAT | TCAGAAATAA | 2220 |
| | AGGGCTATGA | GGGCTATCTT | GGAGCGGGGT | GAGAGCATAG | AGCCTCTGGA | CCCCAGTAGG | 2280 |
| | AAGGCTAAAC | AAGTCTTGCC | CAGAATCTTC | AAAGAGACAG | AGCTAAGGAA | GCTTAAAGTG | 2340 |
| | CTTGGCTCGG | GTGCTTTTGG | AACGTGTGAC | AAAGGAGTGT | GGATCCCTGA | GGGTGAATCA | 2400 |
| | ATCAAGATCT | CAGTCTGCTA | TAAAGTCAAT | GAGGACAAGA | GTCGACGGCA | GAGTTTTCAA | 2460 |
| 40 | GCTGTGACAG | ATCATATGCT | GGCCATTTGG | AGCCTGGACC | ATGCCACAT | TGTAAGGCTG | 2520 |
| | CTGGGACTAT | GCCGAGGGTC | ATCTCTGCAG | CTTGTCACTC | AATATTGTGC | TCTGGGTTCT | 2580 |
| | CTGCTGGATG | ATGATGATCA | ACACCGGGGG | GCACCTGGGC | CACAGCTGCT | GCTCAACTGG | 2640 |
| | GGAGTACAAA | TTGCCAAGGG | AATGTACTAC | CTTGAGGAAC | ATGGTATGGT | GCATAGAAAC | 2700 |
| | CTGGCTGCTC | TAAAGTGGCT | ACTCAAGTCA | CCAGTCCAGG | TTCAAGTGGC | AGATTTTGGT | 2760 |
| 45 | GTGGCTGACC | TGCTGGCTCC | TGATGATTAAG | CAGCTGCTAT | ACAGTGGGCC | CAAGACTCCA | 2820 |
| | ATTAAGTGGG | TGGGCTTTGA | GAGTATCCAC | TTTGGGAAAT | ACACACACCA | GAGTGTATGC | 2880 |
| | TGAGGCTATG | GTGTGACAGT | TTGGGAGTTG | ATGACCTTGC | GGGCGAGGCC | CTATGCAAGG | 2940 |
| | CTACGATTGG | CTGAGTACCC | AGACCTGCTA | GAGAAGGGGG | AGCGGTGTGG | ACAGCCCCAG | 3000 |
| | ATCTGACATA | TTGATGTCTA | CATGGTGTATG | GTCAAGTGTG | GGATGATTGA | TGAGAACATT | 3060 |
| 50 | CGCCCAACCT | TTAAGAAGCT | AGCCATATGAG | TTCAACAGGA | TGGCCCGAGA | CCCACCAACG | 3120 |
| | TATCTGTGTA | TAAAGAGAGA | GAGTGGGCTT | GGATAGCCCT | CTGGGCGAGA | GCTCCATGGT | 3180 |
| | CTGACAAACA | AGAAGCTAGA | GGAAGTAGAG | CTGGAGCCAG | AACCTAGACCT | AGACCTAGAC | 3240 |
| | TTGGAAGCAG | AGGAGGACAA | CCCTGGCAAC | ACCAACATGG | GCTCCGCCCC | CAGCCTACCA | 3300 |
| | GTGGGAACCA | TTAATCGGCC | ACBTGGGAGC | CAGAGCCTTT | TAAAGTCCAT | ATCTGGATAC | 3360 |
| 55 | ATGCCCATGA | ACCAGGGTAA | TCTTGGGGGG | TCTTGGCCAG | AGTCTGCACT | TTCTGGGAGC | 3420 |
| | AGTGAACGGT | GCCCCCTTCC | AGTCTCTCTA | CACCCATATG | CACGGGATG | CTTGGCATCA | 3480 |
| | GAGTCACTAG | AGGGGCAATG | AACAGGCTCT | GAGGCTGAGC | TCCAGGAGAA | AGTGTCAATG | 3540 |
| | TGTAGAAGCC | GGAGCAGGAG | CCGGAGCCCA | CGGCCACGGG | GAGATAGGCG | CTACCATTCC | 3600 |
| | CAGCGCCACA | CTCTGCTGAC | TCCTGTTACC | CCACTCTCCC | CACCGGGGTT | AGAGGAAGAG | 3660 |
| 60 | GATGTCAACG | GTATGTCTAT | GCCAGATACA | CACCTCAAGG | GTACTCCCTC | CTCCCGGGA | 3720 |
| | GGCACCTTTT | CTTCAGTGGG | TCTCAGTCTT | GTCTGGGTA | CTGAAGAAGA | AGATGAAGAT | 3780 |
| | GAGGAGTATG | AATACATGAA | COGAGGAGAA | AGGCACAGTC | CACCTCATCC | COCTAGGCCA | 3840 |
| | AGTTCCCTTG | AGGAGCTGGG | TTATGAGTAC | ATGGATGTGG | GGTCAGACCT | CAGTGCCTCT | 3900 |
| | CTGGGCGACA | CACAGGTTTG | CCCCTCCAC | CCCTGACCCA | TCTGTGCCAC | TGCAGGCACA | 3960 |
| 65 | ACTCCAGATG | AAGACTATGA | ATATATGAAT | CGGCAACGAG | ATGGAAGTGG | TCCTGGGGGT | 4020 |
| | GATTATGACG | CCATGGGGGC | CTGCCCGACA | TCTGAGCAAG | GGTATGAAGA | GATGAGAGCT | 4080 |
| | TTTCAGGGGC | CTGGACATCA | GGCCCCCAT | GTCCATTATG | CCCGCTTAAA | AACCTCAAGT | 4140 |
| | AGCTTAGAGG | CTACAGACTC | TGCCCTTGGT | AACCTGATTT | ACTGGCATAG | CAGGCTTTTC | 4200 |
| | CCCAAGGCTA | ATGCCAGAGG | AAGGTAACTC | CTGCTCCCTG | TGGCACTCAG | GGAGCATTTA | 4260 |
| 70 | ATGGCAGCTA | GTGCCITTAG | AGGGTACCGT | CTTCTCCCTA | TTCCCTCTCT | CTCCAGGCTC | 4320 |
| | CCAGCCCTTT | TTCCCGAGTC | CCAGACAATT | CCATTCAATC | TTTGGAGGCT | TTTAAACATT | 4380 |
| | TTGACACAAA | ATTCTGTGAA | TATGTAGCCA | GCTGTGCACT | TTCTTCTCTT | TOCCAAACCC | 4440 |
| | AGGAAGGTTT | TTCTTATTTT | TGTGTGCTTT | CCCACTCCCA | TTCTCTCAGT | TCTTCACAGG | 4500 |
| | CACCTCTGGA | GATATGAAGG | ATTACTCTCC | ATATCCCTTC | CTCTCAGGCT | CTTGACTACT | 4560 |
| 75 | TGGAACCTAG | CTCTTATGTG | TGCTTTTGT | TCCCATCAGA | CTGTCAAGAA | GAGGAAGGG | 4620 |
| | AGGAACCTTA | GCAGAGGAAA | GTGTAATTTT | GGTTTATGAC | TCTTAAACCC | CTAGAAGAGC | 4680 |
| | AGAACTTAA | AATCTGTGAA | GAAAGAGGTT | AGGAGTAGAT | ATTGATTACT | ATCATAATTC | 4740 |
| | AGCACTTAAC | TATGAGCCAG | GCATCATACT | AAACTTCAAC | TACATTATCT | CACCTAGTCC | 4800 |
| | TTATCATCTC | TTAAACCAAT | TCTGTGACAT | ACATATTATC | TCATTTTACA | CAAAGGGAAG | 4860 |
| 80 | TGGGCACTGG | TGGCTCATGC | CTGTAATCTC | AGCACTTTGG | GAGGCTCAGG | CAGAAGGATT | 4920 |
| | ACCTGAGGCA | AGGAGTTTGA | GAOCAGCTTA | GCCAACATAG | TAAAGCCCCC | ATCTC | 4975 |

Nucleic Acid Accession #: NM_001216.1
Coding sequence: 43..1422

| | 1 | 11 | 21 | 31 | 41 | 51 | |
|----|-------------|-------------|-------------|------------|-------------|-------------|------|
| 5 | GCCCGTACAC | ACCGTGTGCT | GGGACACCCC | ACAGTCAGCC | GCATGGCTCC | CCTGTGCCCC | 60 |
| | AGCCCTCTGGC | TCCCTCTGAT | GATCCCGGCG | CCTGCTCCAG | GCCTCAGTGT | GCAACTGTCTG | 120 |
| | CTGTCACTGAT | TGCTTCTGAT | GCCCTGTCCAT | CCCCAGAGGT | TGCCCTCAGT | CAGCGAGGAT | 180 |
| 10 | TCCCCCTTGG | GAGGAGGGCTC | TTCTGGGGAA | GATGAOCCAC | TGGGGGAGGA | GGATCTGCCC | 240 |
| | AGTGAAGAGG | ATTTCACCCG | AGAGAGGAGAT | CCACCCGGAG | AGGAGAGATCT | ACTCGGAGAG | 300 |
| | GAGGATCTAC | CTCGAGAGGA | GAGATCTACT | GAACTTAAGC | CTAAATTCAGA | AGAGAGAGGCG | 360 |
| | TCCCTGAAGT | TAGAGGATCT | ACTACTTGTT | GAGGCTCCTG | GAGATCTCTCA | AGACACCCAG | 420 |
| | AATAATGCCC | ACAGGGACAA | AGAAAGGGAT | GACAGAGTCT | ATTGGCGCTA | TGGAGGCGAC | 480 |
| 15 | CCGCCCCGGC | CCCGGGTGTC | CCCAGCCTGC | GCCGGCCGCT | TCCAGTCCCC | GGTGGAATTC | 540 |
| | CGCCGCCGAG | TGCGCGCCTT | TGCGCCGGCG | CTGGCCGCCC | TGGAACCTCT | GGCTTCCAG | 600 |
| | CTCCCGCCGC | TCCCAAGAACT | CGCCTGTGCG | AACATATGGC | ACAGTGTGCA | AGCTACCCCTG | 660 |
| | CCTCCTGGGC | TAGAGATGCG | TCTGGGTCCC | GCGCGGAGT | ACCGGCTCT | CAGCGTGCAT | 720 |
| | CTGCACTGGG | GGGCTGACGC | TGCTCCGGGC | TGGAGACACA | CTGTGGAGG | CCACGCTTTC | 780 |
| 20 | CCTGCCGAGA | TCCACGTGGT | TCACTCTCAG | ACCGCCTTTG | CCAGAGTTGA | CGAGGCCCTTG | 840 |
| | GGGGCGCCGG | GAGGCCCTGCG | CGTGTGTGGC | GCCTTTCTGG | AGGAGGGGCC | GGAGAGAAAC | 900 |
| | AGTGCCTATT | AGCAGTTGCT | GTCTCGCTCT | GAGAAGATCG | CTGAGGAGCC | CTCAGAGACT | 960 |
| | CAGGTCCGAG | CTCTGCAGAT | ATCTGCATCT | CTGCCCCCTG | ACTTTCAGCG | CTACTTCCAA | 1020 |
| | TATGAGGGGT | GATCTGACAT | ACCGCCGCTG | GCCCAAGGTG | TACTCTGGAC | TGTGTTTAAC | 1080 |
| 25 | CAGACAGTGA | TGCTGAGTGC | TAAGCAGCTT | CACACCTCTT | CTGACACCCCT | GTGGGGAOCT | 1140 |
| | GGTGACTCTT | GGCTCAGAGT | GAACTTCCGA | CGCAGCCAGC | CTTTCAGTGG | AGCGAGTATT | 1200 |
| | GAGGCCCTCT | TCCCTGCTGG | AGTTGACACG | AGTCTCTGGG | CTGCTGAGCC | AGTCAGACTG | 1260 |
| | CAATCTCTGG | TGCTCTCTGG | TGACATCTTA | GCCCTGGTTT | TGGGCTCTCT | TTTGTCTGTC | 1320 |
| | ACCAGCGTCT | CGTTCCTTGT | CGAGATGAGA | AGGCAGCACA | GAGGGGGAAC | CAAGGGGGGT | 1380 |
| 30 | GTGAGCTACC | GCCCAGCAGA | GGTAGCCGAG | ACTGGAGCCT | AGAGGCTGGA | TCTTGGAGAA | 1440 |
| | TGTGAGAAGC | CAGCCAGAGG | CACTGTGAGG | GGAGCCGGTA | ACTGTCTGTT | CTCTGTCATT | 1500 |
| | ATGCCACTTC | CTTTTAAGTG | CCAGAGAAAT | TTTTAAATAA | AATATTATAT | AT | 1555 |

Seq ID NO: C77 DNA Sequence
Nucleic Acid Accession #: NM_004207.1
Coding sequence: 63..1460

| | 1 | 11 | 21 | 31 | 41 | 51 | |
|----|------------|-------------|------------|------------|-------------|------------|------|
| 40 | GGCCAGAGGC | GGGCTGAGGC | GGCCAGGCGG | GSGCAGGTGA | GGCGGAACCA | ACCCCTCTGG | 60 |
| | CCATGGGAGG | GGCCCTGGTG | GACAGAGGGC | CCACAGGGGT | CAGGGCCCTC | GACGCGGGCT | 120 |
| | GGGGCTGGGC | CGTGCTCTTC | GGCTGTTTTG | TCATCACTGG | CTTCTCCTAC | GTCTTCCCCA | 180 |
| | AGGCGGTGAG | TGTTCTTCTC | AAGAGAGCTA | TACAGGAGTT | TTGGATCGGC | TACAGGACCA | 240 |
| | CAGCCTGATG | CTCTCTCATC | CTGCTGGGCA | TGCTCTAAGC | GACAGAGTCG | CTTCTCAGTG | 300 |
| 45 | TGTGGTGAAG | CCGCTTTGGC | TGCGGGCCCG | CTATCTTGTT | GGGCGGTCTC | TTTGGCTGCG | 360 |
| | TGGGCTGGTT | GGCTGCGTCC | TTTTCGCGGA | GCATCATCCA | GGTCTACCTC | ACCACTGGGG | 420 |
| | TCATCAGCGG | GTTGGGTTTG | GCACTCAACT | TCCAGCCCTC | GCTCATCATG | CTGAAACGCT | 480 |
| | ACTTCAGCAA | GGGCGGAGCC | ATGCGCAAGC | GGCTGGCGGC | AGCAAGGTAGC | CTGTGTTTCC | 540 |
| | TGTGTGCCCT | GGGCGGCTGC | GGGCAAGCTC | TGCAGGACCG | CTACGCTGGG | CGGGGGGGCT | 600 |
| 50 | TCTCATCTCT | GAGCGGCGTG | TGCTCAACTC | GCTGGGTGTG | GTCCGCACTC | ATGAGGCCCC | 660 |
| | TGGTGGTCAC | GGCCAGAGCG | GGCTCGGGGC | CGCCGCGACC | CTCCCGCGCG | CTGCTAGACC | 720 |
| | TGAGGCTCTT | CGGCGAAGCG | GGCTTTGTGC | TTTACGCGGT | GGGCGGCTCG | GTCATGGTGC | 780 |
| | TGGGCTCTTT | CCGTCGCGCC | GTGTTCTGTG | TGAGCTACGC | CAGAGGACCT | GGCGTGGCCG | 840 |
| | ACACCAAGGC | CGCTCTCTGT | CTACCATCTC | TGGGCTTCAT | TGACATCTTC | CGCGGCGCGG | 900 |
| 55 | CGGCGGCTT | GTGGCGGGGG | CTTGGGAAGG | TGGCGCCCTA | CTCGCTCTAC | CTCTTAGCTG | 960 |
| | TCTCATGTTT | CTTCAACGCG | CTCGCGGACC | TGGCGGGCTC | TACGCGGGGC | GACTACGGCG | 1020 |
| | GGCTGTGGTT | CTTCTGTCATC | TTCTTTGGCA | TTCTCTAAGC | CATGGTGGGG | GGCCTGCACT | 1080 |
| | TGAGGCTGCT | CTGGCGCATC | CTGGGTCACC | ACAAAGTTCT | CAGTGCATT | GGCTCTGTGC | 1140 |
| | TGCTATGAGA | GGGGGTGGCC | GTGCTGTGTG | GGGCGGCTTC | GGAGGCGCAA | CTCTCGGATG | 1200 |
| 60 | CGAACAAGCT | CTACATGTAC | GTCCTCATCC | TGGCGGGGCG | GAGGTGCTC | ACCTCTCTCC | 1260 |
| | TGATTTTGCT | GCTGGGCAAC | TTCTTCTGCA | TTAGGAAGAA | GCCCAAAGAG | CCACAGCGTG | 1320 |
| | AGTGTGGCGG | CGCGGAGGAG | GAGAAGCTCC | ACAAGCCTCC | TGCAAGACTG | GGGGTGGACT | 1380 |
| | TGCGGAGGCT | GGAGAGCTTC | GTAAGAGCTC | AGCCTGAGAA | AAAGCGGGAG | TGTGGTTACA | 1440 |
| | CCCGGGAAC | AAGTGTCTGA | GTGGCTGGGC | GGGGCGGGCA | GGCACAGGGA | GGAGGTACAG | 1500 |
| 65 | AAGCGGCGAA | CGCTTGTCTT | TTATTTTACA | AACTGGAATG | GCTCAGGACG | GGCCACGGCT | 1560 |
| | GGGCTCCAGC | TGCGGCGCCA | GCGGATGTGC | GCCCGATCAG | GTTTTTGAGG | GGGAAGGTGG | 1620 |
| | CGGGGTGGGA | ACCGGTGTCAT | TCCAGAGTGT | ATCTGCGGTG | AAGCCAGAGC | CGAGAGTTAC | 1680 |
| | AGGGATCCT | CACAGGAGGC | GCTGCCGTGT | GCTTCCAGGT | GGCTTGGCGC | CAGCTGTAGT | 1740 |
| | CTCAGGAGCC | TGGAACACCA | TGCTTCGAGA | CAAGTGACTC | TTAATGGGAG | GGTGGGTGGG | 1800 |
| 70 | CGCCAGACAG | GCTGGCAGGG | CAGGTGCTGC | TGTGGGCGCT | CTCCAGCCCG | CTCTACCGTG | 1860 |
| | GGCTCATATG | GGGCGCTGTG | CACGCCCTCT | TGAGTGTCTT | GGGAGACAGT | TCTTCAACCC | 1920 |
| | CTGGAAGATG | GAATAAACC | TGCTGTGGGG | TGAGTGTCTC | TGTTGCCGAA | TTCAAAAGC | 1980 |
| | TT | | | | | | 1982 |

Seq ID NO: C78 DNA Sequence
Nucleic Acid Accession #: NM_000358.1
Coding sequence: 48..2099

80

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| GCTTGCCCGT | CGGTGCTAG | CTGGCTCGGT | GGCGGTCTGC | CCGCTCCATG | GGCTCTCTCC | 60 |
| TGCGGCTGCT | GGCTCTGGCC | CTGGCTCTGG | CCCTGGGCCC | CGCGCGGACC | CTGGCGGGTC | 120 |
| CCGCCAAGTC | GGCCCTACCA | CTGGCTCTGC | AGCACAGCAT | GGCTCGGGGC | GGCCAGCACT | 180 |
| CGCCCAACGT | GTGTGCTGTG | CAGTAAGGTTA | TGGCACTAA | TAGGAAGTAG | GTCCACCACT | 240 |

| | | | | | | | |
|----|-------------|------------|------------|-------------|------------|-------------|------|
| 5 | GCAAGCAGTG | GTACCAAAAG | AAAATCTGTG | GCAATCAAC | AGTCATCAGC | TACGAGTGCT | 300 |
| | GTCTGGGATA | TGAAAAGGTC | CCTGGGGAGA | AGGGCTGTCC | AGCAGCCCTA | CCACTCTCAA | 360 |
| | ACCTTTACGA | GACCTTGGGA | GTCTTGGAT | CCACCACCAC | TCAGCTGTAC | ACGGACCBCA | 420 |
| | CGGAGAAGCT | GAGGCTCTAG | ATGGAGGGGC | CCGGCAGCTT | CACCATCTTC | GCCCTTAGCA | 480 |
| | ACGAGGCGCT | GGCCTCCTTG | CCAGCTGAAG | TGCTGGACTC | CCTGGTCAGC | AATGTCAACA | 540 |
| | TTGAGCTGCT | CAATGCCCTC | CGCTACCAT | TGCTGGGCAG | GCGAGTCCTG | ACTGATGAGC | 600 |
| | TGAAACACGG | CATGACCCCT | ACCTCTATGT | ACCAGAAATC | CAACATCCAG | ATCCACCACCT | 660 |
| | ATCTTAATGG | GATTGTAAC | GTGAACTGTG | CCCGGCTCCT | GAAAGCCGAC | CACCATGCAA | 720 |
| 10 | CCAAOOGGGT | GSTGCACCTC | ATCGATAAGG | TCATCTCCAC | CATCACCAC | AACATCCAGC | 780 |
| | AGATCATTGA | GATCGAGGAC | ACCTTTGAGA | CCCTTGGGGC | TGCTGTGGCT | GCATCAGGGC | 840 |
| | TCACACCGAT | CCTTGAAGGT | AAOGGCCAGT | ACACGCTTTT | GGCCCCBACC | AATGAGGCT | 900 |
| | TCGAGAAGAT | CCCTAGTGAG | ACTTTGAACC | GTATCCTGGG | CGACCCAGAA | GCCCTGAGAG | 960 |
| | ACCTGCTGAA | CAACCAATC | TTGAAGTCAG | CTATGTGTGC | TGAAGCCATC | GTTCGGGGGC | 1020 |
| 15 | TGCTGTGAGA | GACCTGGGAG | GGCACBACAC | TGGAGGTGGG | CTGCAGCGGG | GACATGCTCA | 1080 |
| | CTATCAACGG | GAAGCGGATC | ATCTCCAATA | AAGACATCCT | AGCCACCAAC | GGGGTGATCC | 1140 |
| | ACTACATTGA | CCTGATCTAC | ATCCCAAGCT | CAGCCCAAGC | ACTATTTGAA | TGGCTGCGAG | 1200 |
| | AGTCTGATGT | GTCCACAGCC | ATTGACCTTT | TCAGACAGC | CGGCTCGBG | AATCATCTCT | 1260 |
| | CTGGAAGTGA | GCGGTGACCC | CTCTGGCTC | CCCTGAATTC | TGTATTCAAA | GATGGAACCC | 1320 |
| 20 | CTCCAAATTGA | TGCCCATACA | AGGAAATTGC | TTCCGGAACCA | CATATTTAAA | GACCAGCTGG | 1380 |
| | CTCTTAAGTA | TCTGTACCAT | GGACAGACCC | TGGAAGCTCT | GGGCGGCAAA | AAACTGAGAG | 1440 |
| | TTTTTGTGTA | TGCTAATAGC | CTCTGCATTC | AGAACAGCTG | CATCGCGGGG | CAOGACAAGA | 1500 |
| | GGGGGAGGTA | CGGGACCTTG | TTCAAGTAGG | AOCGGGTGCT | GACCCCCCCA | ATGGGGAGCT | 1560 |
| | TCATGGATGT | CCTGAAGGGA | GACAAATGCT | TTAGCATGCT | GGTAGCTGCC | ATCCAGTCTG | 1620 |
| 25 | CAGGACTGAC | GAGAGCCCTC | AACCGGGAAG | GAGTCTACAC | AGTCTTTGCT | CCCAAAATG | 1680 |
| | AAGGCTTCGG | AGCCCTTGCA | CCAAAGAGAC | GGAGCAGACT | CTTGGGAGAT | GCCAAGGAAC | 1740 |
| | TTGGCAACTG | CCTGAAATAC | CACATTGTGT | ATGAAATCCT | GCTTAGCAGA | GGCATCGGGG | 1800 |
| | CCCTGGTGCG | GCTAAAGTCT | CTCCAGAGTG | ACAAGCTGGA | AGTCAGCTTG | AAAAACATG | 1860 |
| | TGGTGAAGTG | CAACAAGGAG | CCTGTTGCCG | AGCCTGACAT | CATGGCCACA | AATGGCGTGG | 1920 |
| 30 | TCCATGTTCAT | CACCAATGTT | CTGCAGCCTC | CAGCCCAACG | ACCTCAGGAA | AGAGGGGATG | 1980 |
| | AACTTGACAG | CTCTGGGCTT | GAGATCTTCA | AAACAAGTCT | AGCGTTTTC | AGGGCTTCCG | 2040 |
| | AGAGGCTCTT | GCGTATAGCC | CCTGTCTATC | AAAAGTTATT | AGAGAGGATG | AAGCATTTAC | 2100 |
| | TTGAGCACT | ACAGGAGGAA | TGCACCAAGG | CAGCTCTCCG | CCAATTTCTC | TCAGATTTC | 2160 |
| | ACAGAGACTG | TTTGAATGTT | TTCAAAACCA | AGTATCACAC | TTTAAATGAC | ATGGGCGGCA | 2220 |
| 35 | CCATAATGAG | ATGTGAGGCT | TGTGCATGTG | GGGGAGGAGG | GAGAGAGATG | TACTTTTAA | 2280 |
| | ATCATGTTCC | CCCTAAACAT | GGCTGTAAAC | CCACTGCATG | CAGAACTTGG | GATGTCACTG | 2340 |
| | CTCGACATTC | ACTTCCACAG | AGGACCTATC | CCAAATGTGG | AATTGACTGC | CTATGCCAAG | 2400 |
| | TCCTTGGAAA | AGGAGCTTCA | GTATTGTGGG | GCTCATAAAA | CATGAATCAA | GCAATCCAGC | 2460 |
| | CTCATGGGAA | GTCTTGGCAC | AGTTTTTGTA | AAGCCCTTGC | ACAGCTGGAG | AAATGGCATC | 2520 |
| 40 | ATTATAGCT | ATGAGTTGAA | ATGTTCTGTC | AAATGTGTCT | CACATCTACA | CGTGGCTTGG | 2580 |
| | AGGCTTTTAT | GGGGCCCTGT | CCAGGTAGAA | AAGAAATGCT | ATGTAGAGCT | TAGATTTCCT | 2640 |
| | TATTGTGACA | GAGCCATGGT | GTGTTTGTA | TAATAAAACC | AAAGAAACAT | A | 2691 |

Seq ID NO: C79 DNA Sequence
Nucleic Acid Accession #: NM_006536.2
Coding sequence: 109..2940

| | | | | | | | |
|----|-------------|-------------|------------|-------------|-------------|-------------|------|
| 50 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | ACCTAAAAAC | TTGCAAGTTC | AGGAAGAAAC | CATCTGCATC | CATATTGAAA | ACCTGACACA | 60 |
| | ATGTATGCGG | CAGGCTCAGT | GTGAGTGAAC | TGGAGGCTTC | TCTACAACAT | GACCCAAAGG | 120 |
| | AGCATTGCGG | GTCTTATTTG | CAACCTBAAG | TTTGTCAGTC | TCCTGSGTGC | CTTAAGTTCA | 180 |
| | GAACTCCCAT | TCCCTGGGAGC | TGGAGTACAG | CTTCAAGACA | ATGGGTATAA | TGGATTGCTC | 240 |
| 55 | ATTGCAATTA | ATCTTCAGGT | ACCTGAGAAT | CAGAACCCTCA | TCTCAACAT | TAAGGAAATG | 300 |
| | ATAACTGAAG | CTTCATTTTA | CCTATTTAAT | GCTACCAAGA | GAAGAGTATT | TTTCAGAAAT | 360 |
| | ATAAAGATT | TAATACCTGC | CACATGGAAA | GCTAATAATA | ACAGCAAAAT | AAACAAAGAA | 420 |
| | TCATATGAAA | AGGCAAAATG | CATAGTGACT | GACTGGTATG | GGGCACTATG | AGATGATCCA | 480 |
| | TACACCTTAC | AATACAGAGG | GTGTGGAAAA | GAGGGAAAAAT | ACATTCATTT | CACACCTAAT | 540 |
| 60 | TTCTACTTGA | ATGATAACTT | AACAGCTGGC | TACGGATCAC | GAGGCGGAGT | GTTTGTCCAT | 600 |
| | GAAATGGGCC | ACCTCCGTTG | GGGTGTGTTT | GATGAGTATA | ACAATGACAA | ACCTTTCTAC | 660 |
| | ATAAATGGGC | AAAATCAAAT | TAAAGTBACA | AGGTGTTTCT | CTGACATCAC | AGGCATTTT | 720 |
| | GTGTGTGAAA | AAGGTCCCTG | CCCCCAAGAA | AATCTTATTA | TTAGTAAGCT | TTTAAAGAA | 780 |
| | GGATGCACTT | TTATCTACAA | TAGCAACCAA | AATGCAACTG | CATCAATAT | GTTTATGCAA | 840 |
| 65 | AGTTTATCTT | CTGTGGTTGA | ATTTTGTAA | GCAAGTACCC | ACAACCAAGA | AGCAACCAAC | 900 |
| | CTACAGAAC | AGATGTGCGG | CCTCAGAAAT | GCATGGGATG | TAATCAGAGA | CTCTGCTGAC | 960 |
| | TTTCACTACA | GCTTTTCCAT | GAATGGGACT | GAGCTTCCAC | CTCCTCCAC | ATTCTGCTT | 1020 |
| | GTACAGGCTG | GTGACAAAGT | GGTCTGTTTA | GTGCTGGATG | TGTCACAGCA | GATGGCAGAG | 1080 |
| | GCTGACAGAC | TCCFTCAACT | ACAAACAAGC | GCAGAAATTT | ATTTGATGCA | GATTGTTGAA | 1140 |
| 70 | ATTCTATACCT | TGCTGGGCA | TGCCAGTTTC | GACAGCAAGG | GAGAGATCAG | AGCCCAAGCTA | 1200 |
| | CACCAAAATTA | ACAGCAATGA | TGATCGAAAG | TTGCTGGTTT | CATATCTGCC | CACCACTGTA | 1260 |
| | TCAGCTAAAA | CAGACATCAG | CATTGTGTTA | GGGCTTAAGA | AAGGATTGGA | GTTGGTTGAA | 1320 |
| | AAACTGAATG | GAAGAAGCTTA | TGGCTCTGTG | ATGATATTAG | TGACCAAGCGG | AGATGATAAG | 1380 |
| | CTTCTTGGCA | ATTGCTTACC | CACGTGTGCT | AGCAGTGGTT | CAACAATTC | CTCCATTGCC | 1440 |
| 75 | CTGGGTTTCT | CTGCAGCCCC | AAATCTGGAG | GAATTATCAC | GTCTTACAGG | AGGTTTAAAG | 1500 |
| | TTCTTTGTTC | CAGATATATC | AAATCTCAAT | AGCATGATTT | ATGCTTTCAG | TAGAAATTTCC | 1560 |
| | TTCTGAACTG | GAGACATTTT | CCAGCAACAT | ATTCAAGCTG | AAAGTACAGG | TGAAATATGC | 1620 |
| | AAACCTCAC | ATCAATTTGA | AAACACAGTG | ACTGTGGATA | ATACTGTGGG | CAACGACACT | 1680 |
| | ATGTTTCTAG | TTACGTGGCA | GGCCAGTGGT | CCTCTGAGA | TTATATTAAT | TGATCTGAT | 1740 |
| 80 | GGACGAAAT | ACTACACAAA | TAATTTTATC | ACCAATCTAA | CTTTCTGGAG | AGCTAGTCTT | 1800 |
| | TGGATTCCAG | GAACAGCTAA | GCTTGGGCAC | TGGACTTACA | CCCTGAACAA | TACCCATCAT | 1860 |
| | TCTCTGCAAG | CCCTGAAGAT | GACAGTGACC | TCTGCGCCTT | CCAACCTCAG | TGTGCCCCCA | 1920 |
| | GCCACTGTGG | AAGCCTTTGT | GGAAGAGAGC | AGCCTCCATT | TTCTCTATCC | TGTGATGATT | 1980 |
| | TATGCCAATG | TGAACAGGGG | ATTTTATCCC | ATTCITTAAG | CCACTGTACC | TGCCACAGTT | 2040 |
| | GAGCCAGAGA | CTGGAGATCC | TGTTACGCTG | AGACTCCTTG | ATGATGGAGC | AGGTGCTGAT | 2100 |

| | | | | | | | |
|----|------------|------------|-------------|------------|------------|-------------|------|
| | GTATATAAAA | ATGATGGAAT | TTACTCGAGG | TAFTTTTTCT | CCTTGTCTGC | AAATGGTAGA | 2160 |
| | TATAGCTTGA | AAGTGCATGT | CAATCACTCT | CCCAGCATAA | GCACCCAGC | CCACTCTATT | 2220 |
| | CCAGGGAGTC | ATGCTAATGT | TGTACCAGGT | TACACAGCAA | ACGGTAATAT | TCAGATGAAT | 2280 |
| 5 | GCTCCAAGGA | AATCAGTAGG | CAGAAATGAG | GAGGAGCGAA | AGTGGGGCTT | TAGCCGAGTC | 2340 |
| | AGCTCAGGAG | GCTCCTTTTC | AGTGTGGA | GTCCAGCTG | GCCCCACCC | TGATGTGTTT | 2400 |
| | CCACCATGCA | AAATTATTGA | CCTGSAAGCT | GTAAAGTAG | AAGAGGAATT | GACCTATCTT | 2460 |
| | TGGACAGCAC | CTGGAGAAGA | CTTTGATCAG | GGCCAGGCTA | CAAGCTATGA | AAATAAGAATG | 2520 |
| | AGTAAAAGTC | TACAGAATAT | CCAAGATGAC | TTTAACAATG | CTATTTTAGT | AAATACATCA | 2580 |
| 10 | AAGCGAAATC | CTCAGCAAGC | TGGCATCAGG | GAGATATTTA | CGTTCTCACC | CCAGATTCC | 2640 |
| | ACGAATGGAC | CTGAACATCA | GCCAAATGGA | GAAACACATG | AAAGCCACAG | AAATTTATGT | 2700 |
| | GCAATACGAG | CAATGGATAG | GAATCCTTA | CAGTCTGCTG | TATCTAACMT | TGCCAGGCG | 2760 |
| | CCCTCTGTTA | TTCCCCCAAA | TTCTGATCCT | GTACCTGCCA | GAGATTATCT | TATATTGAAA | 2820 |
| | GGAGTTTAA | CAGCAATGGG | TTTGATAGGA | ATCATTGGCC | TTATTATAGT | TGTGACACAT | 2880 |
| 15 | CATACTTTAA | GCAGGAAAAA | GAGAGCAGAC | AAGAAGAGA | ATGGAACAAA | AATTATTATA | 2940 |
| | ATAAATATCC | AAAGTGTCTT | CCCTCTTAGA | TATAAGACCC | ATGGCCTTCG | ACTACAAAAA | 3000 |
| | CATACTAACA | AAGTCAAAAT | AACATCAAAA | CTGTATTAAA | ATGCATTGAG | TTTTGTACA | 3060 |
| | ATACAGATAA | GATTTTACA | TGGTAGATCA | ACAATCTTTT | TTGGGGGTAG | ATTAGAAAAA | 3120 |
| | CCCTACACAT | TGGCTATGAA | CAATAATATA | AAATTATTCT | TTAAAGTAAT | GTCTTTAAAG | 3180 |
| 20 | GCAAAGGGAA | GGGTAAAGTC | GGACCATGCT | CAAGGAAAGT | TTGTTTATT | GAGGTGGA | 3240 |
| | AATAGCCCCA | AGCAGAGAAA | AGCAGGCTAG | GTCTGCATTA | TAATGTCTG | TGTGAAGCAA | 3300 |
| | TCATTTAGTT | ACTTTGATTA | ATTTTCTTT | TCTCCTTATC | TGTGAGTAC | AGGTTGCTTG | 3360 |
| | TTTACATGAA | GATCATGCTA | TATTTTATAT | ATGTAGCCCC | TAATGCAAA | CTCTTTACCT | 3420 |
| | CTTGCTATTT | TGTTATATAT | ATTTTCAGATG | ACATCTCCCT | GCTAATGCTC | AGAGATCTTT | 3480 |
| 25 | TTTCACTGTA | AGAGGTAACC | TTTAAACAATA | TGGGTATTAC | CTTTGTCTCT | TCATACCGGT | 3540 |
| | TTTATGACAA | AGGTCATATT | AAATTATTG | TNTGTAAATT | TCTACTCCCA | TCAAAGCAGC | 3600 |
| | TTTCAAGTT | TATTCCTTGG | GGTTATTATG | GAATGATAGT | TATAGCCCCN | TATAATGCCT | 3660 |
| | TACCTAGGAA | A | | | | | 3671 |

Seq ID NO: C80 DNA Sequence
Nucleic Acid Accession #: E08 sequence
Coding sequence: 1..1413

| | | | | | | | |
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| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 35 | ATGAAGTTTC | TTCTAATACT | GCTCCTGCAG | GCCACTGCCT | CTGGAGCTCT | TCCCTGAAC | 60 |
| | AGCTCTACAA | GCCTGGAAAA | AAATAATGTG | CTATTGGGTG | AAAGATACTT | AGAAAAATTT | 120 |
| | TATGGCCCTTG | AGATAAACAA | ACITCCAGTG | ACAAAAATGA | AATATAGTGG | AAACTTAATG | 180 |
| | AAGGAAAAAA | TCCAAGAAAT | GCAGCACTTC | TTGGGTCTGA | AAGTGACCGG | GCAACTGGAC | 240 |
| 40 | ACATCTACCC | TGGAGATGAT | GCACGCACCT | CGATGTGGAG | TCCCGATGT | CCATCATTTT | 300 |
| | AGGGAAATGC | CAGGGGGGCC | CGTATGGAGG | AAACATTATA | TCACTTACAG | AATCAATAAT | 360 |
| | TACACACCTG | ACATGAACCG | TGAGGATGTT | GACTACGCAA | TCCGGAAGGC | TTTCCAAGTA | 420 |
| | TGGAGTAATG | TTACCCCTTT | GAAATTCAGC | AAGATTAAACA | CAGGCATGGC | TGACATTTTG | 480 |
| | GTGGTTTTTG | CCCGTGGAGC | TCATGGAGAC | TTCCATGCTT | TTGATGGCAA | AGGTGGAAATC | 540 |
| 45 | CTAGCCCATG | CTTTTGGACC | TGGATCTGGC | ATTGGAGGGG | ATGCACATTT | CGATGAGGAC | 600 |
| | GAATTCCTGGA | CTACACATTC | AGGAGGCACA | AACTTGTTC | TCACTGCTGT | TACGAGATT | 660 |
| | GGCCATTCTCT | TAGGTCTTGG | CCATTCTAGT | GATCCAAAGG | CGTAAATGTT | CCCCACCTAC | 720 |
| | AAATATGTTG | ACATCAACAC | ATTTCGCCCTC | TCTGCTGATG | ACATACGTGG | CAATTCAGTCC | 780 |
| | CTGTATGGAG | ACCCAAAGAG | GAACCAAGCG | TTGCCAAATC | CTGACAATTC | AGAACAGCT | 840 |
| 50 | CTCTGTGACC | CCAAATTTGAG | TTTTGATGCT | GTCACTACCG | TGGGAATATA | GATCTTTTTC | 900 |
| | TTCAAAGACA | GGTCTCTCTG | GCTGAAGGTT | TCTGAGAGAC | CAAAGACCAG | TGTTAATTTA | 960 |
| | ATTTCTTCTT | TATGGCCAAC | CTTGCCATCT | GGCATTGAAG | CTGCTTATGA | AATTGAAGCC | 1020 |
| | AGAAATCAAG | TTTTTCTTTT | TAAAGATGAC | AAATCTGGT | TAAATAGCAA | TTTAAGACCA | 1080 |
| | GAGCCAAATT | ATCCCAAGAG | CATACATCTT | TTTGGTTTTC | CTAATTTTGT | GAAAAAATTT | 1140 |
| 55 | GATGCAGCTG | TTTTTAAACC | ACGTTTTTAT | AGGACCTACT | TCTTTGTAGA | TAACCAAGTAT | 1200 |
| | TGGAGGTATG | ATGAAAGGAG | ACAGATGATG | GACCTCGGTT | ATCCCAAACT | GATTACCAAG | 1260 |
| | AGATTCGAG | GAATCGGGCC | TAAATTTGAT | GCAGTCTTCT | ACTCTAAAAA | CAAAATCTAC | 1320 |
| | TATTTCTTCC | AAGGATCTAA | CCAATTTGAA | TATGACTTCC | TACTCCAAAG | TATCACCATA | 1380 |
| | ACACTGAAAA | GCAATAGCTG | GTTTGGTTGT | TGA | | | 1413 |

Seq ID NO: C81 DNA Sequence
Nucleic Acid Accession #: E08 sequence
Coding sequence: 1..1413

| | | | | | | | |
|----|-------------|-------------|-------------|-------------|------------|-------------|------|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 65 | ATGAAGTTTC | TTCTAATACT | GCTCCTGCAG | GCCACTGCCT | CTGGAGCTCT | TCCCTGAAC | 60 |
| | AGCTCTACAA | GCCTGGAAAA | AAATAATGTG | CTATTGGGTG | AAAGATACTT | AGAAAAATTT | 120 |
| | TATGGCCCTTG | AGATAAACAA | ACITCCAGTG | ACAAAAATGA | AATATAGTGG | AAACTTAATG | 180 |
| 70 | AAGGAAAAAA | TCCAAGAAAT | GCAGCACTTC | TTGGGTCTGA | AAGTGACCGG | GCAACTGGAC | 240 |
| | ACATCTACCC | TGGAGATGAT | GCAAGCACCT | CGATGTGGAG | TCCCGATGT | CCATCATTTT | 300 |
| | AGGGAAATGC | CAGGGGGGCC | CGTATGGAGG | AAACATTATA | TCACTTACAG | AATCAATAAT | 360 |
| | TACACACCTG | ACATGAACCG | TGAGGATGTT | GACTACGCAA | TCCGGAAGGC | TTTCCAAGTA | 420 |
| | TGGAGTAATG | TTACCCCTTT | GAAATTCAGC | AAGATTAAACA | CAGGCATGGC | TGACATTTTG | 480 |
| 75 | GTGGTTTTTG | CCCGTGGAGC | TCATGGAGAC | TTCCATGCTT | TTGATGGCAA | AGGTGGAAATC | 540 |
| | CTAGCCCATG | CTTTTGGACC | TGGATCTGGC | ATTGGAGGGG | ATGCACATTT | CGATGAGGAC | 600 |
| | GAATTCCTGGA | CTACACATTC | AGGAGGCACA | AACTTGTTC | TCACTGCTGT | TACGAGATT | 660 |
| | GGCCATTCTCT | TAGGTCTTGG | CCATTCTAGT | GATCCAAAGG | CGTAAATGTT | CCCCACCTAC | 720 |
| | AAATATGTTG | ACATCAACAC | ATTTCGCCCTC | TCTGCTGATG | ACATACGTGG | CAATTCAGTCC | 780 |
| | CTGTATGGAG | ACCCAAAGAG | GAACCAAGCG | TTGCCAAATC | CTGACAATTC | AGAACAGCT | 840 |
| 80 | CTCTGTGACC | CCAAATTTGAG | TTTTGATGCT | GTCACTACCG | TGGGAATATA | GATCTTTTTC | 900 |
| | TTCAAAGACA | GGTCTCTCTG | GCTGAAGGTT | TCTGAGAGAC | CAAAGACCAG | TGTTAATTTA | 960 |
| | ATTTCTTCTT | TATGGCCAAC | CTTGCCATCT | GGCATTGAAG | CTGCTTATGA | AATTGAAGCC | 1020 |
| | AGAAATCAAG | TTTTTCTTTT | TAAAGATGAC | AAATCTGGT | TAAATAGCAA | TTTAAGACCA | 1080 |
| | GAGCCAAATT | ATCCCAAGAG | CATACATCTT | TTTGGTTTTC | CTAATTTTGT | GAAAAAATTT | 1140 |

5
 10
 15
 20
 25
 GATGCAGCTG TTTTAAACCC ACGTTTTFAT AGGAOCTACT TCTTTGTAGA TAACCAGTAT 1200
 TGGAGGTATG ATGAAGAGGAG ACAGATGATG UACCCTGGTT ATCCCAAAC TATTACCAAG 1260
 AACTTCCAGG GAATCGGGCC TAAATTTGAT GCAGTCTTCT ACTCTAAAA CRAATACTAC 1320
 TATTTCTTCC AAGGATCTAA CCAATTGAA TATGACTTCC TACTCCAAAG TATCACCAAA 1380
 ACACTGAAAA GCAATAGCTG GTTGGTGTG TGA 1413

Seq ID NO: C82 DNA Sequence
 Nucleic Acid Accession #: NM_006952.1
 Coding sequence: 11..793

1 11 21 31 41 51
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 AATCCCGACA ATGGCGAAGG ACAACTCAAC TGTTCGTTGC TTCCAGGGCC TGCTGATTTT 60
 TGGAAATGTG ATTTATGGTT GTTCGGGCAT TGCCCTGACT GCGGAGTGA TCTTCTTTGT 120
 ATCTGACCAA CACAGCTCTT ACCCACTGCT TGAAGCCACC GACAACGATG ACATCTATGG 180
 GGCTGCCTGG ATCGCATAT TGTGGGCAT CTGCTCTTC TGCCTGTCTG TTCTAGGCTAT 240
 TBTAGGCATC ATGAAGTCCA GCAGGAAAAT TCTTCTGGCG TATTTCATTC TGATGTTTAT 300
 AGTATATGCC TTTGAAGTGG CATCTGTGAT CACAGCAGCA ACACAACGAG ACTTTTTCAC 360
 ACCCAACCTC TTCTGTAAGC AGATGCTAGA GAGGTACCAA AACACAGCC CTCCAAACAA 420
 TGATGACCAg TGGAAAAACA ATGGAGTCAC CAAAACCTGG GACAGGCTCA TGCTCCAGGA 480
 CAATTGCTGT GCGTAAATG GTCCATCAGA CTGGCAAAAA TACACATCTG CCTTCGGGAC 540
 TGAGAAATAT GATGCTGACT ATCCCTGGCC TCGTCAATGC TGTGTTATGA ACAATCTTAA 600
 AGAACCTCTC AACCTGGAGG CTGTAAACT AGGCGTGCC TGGTTTATC ACAATCAGGG 660
 CTGCTATGAA CTGATCTCTG GTCCAAATGA CCGACACGCC TGGGGGGTGG CCTGGTTTGG 720
 ATTTGCCATT CTCTGCTGGA CTTTITGGGT TCTCCTGGGT ACCATGTCTCT ACTGGAGCAG 780
 AATTGAATAT TAAGAA 796

Seq ID NO: C83 DNA Sequence
 Nucleic Acid Accession #: NM_001793.2
 Coding sequence: 71..2560

1 11 21 31 41 51
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 AAAGGGGCAA GAGCTGAGGG GAACACCGGC CGCGCGTCC GGCAGCTGCT TCACCCCTCT 60
 CTCTGCAGCC ATGGGGCTTC CTCTGGGACC TCTCGCGTCT CTCTCTCTTC TCACAGGTTG 120
 CTGGCTGCAG TGCGGGGCTT CGAGCCGCTG CGCGCGGCTC TTCAGGGAGG CTGAAGTGAC 180
 CTTGAGGGCG GGAGGCGCGG AGCAGGAGCC CGGCCAGGCG CTGGGGAAAG TATTCTATGG 240
 CTGCGCTGGG CAAGAGCCAG CTCTGTTTAG CACTGATAAT GATGACTTCA CTGTGCGGAA 300
 TGGGAGAGCA GTCCAGGAAA GAAGGTCACT GAAGGAAAGG AATCCATTGA AGATCTTCCC 360
 ATCCAAACGT ATCTTAGGAA GACACAAGAG AGATTGGGTG GTTGCTCCAA TATCTGTCCC 420
 TGAAATGCG AAGGTCCCTT TCCCCAGAG ACTGAATCAG CTCAGTCTA ATAAAGATAG 480
 AGACACCAAG ATTTTCTACA GCATCACGGG GCGGGGGCA GACAGCCGCC CTGAGGGTGT 540
 CTTGCTGTGA GAGAAGGAGA CAGGCTGGTT GTTGTGAAT AAGCCATCTG ACCGGGAGGA 600
 GATTGCTCAG GATCAGCTCT TTGGCCACGC TGTGTCAAG AATGGTGCCT CAGTGGAGGA 660
 CCCCATGAAC ATCTCCATCA TCGTGAACGA CCAGAATGAC CACAAGCCCA AGTTTACCCA 720
 GGACACCTTC CGAGGGAGTG TCTTAGAGGG AGTCTACCA GGTACTTCTG TGATGCAGGT 780
 GACAGCCACG GATGAGGATG ATGCCATCTA CACCTACAT GGGGTGGTGG CTTACTCCAT 840
 CCATAGCCAA GAACCAAGG ACCCACACGA CCTCATGTTT ACCATTCAAC GGAGCACAGG 900
 CACCATCAGC GTCATCTCCA GTGCCCTGGA CCGGGAAGAA GTCCCTGATG ACACACTGAC 960
 CATCCAGGCC ACACACATGG ATGGGGACGG CTCCACACCC ACGGCAGTGG CAGTATGGA 1020
 GATCCTTGAT GCCAATGACA ATGCTCCAT GTTTGACCCC CAGAAGTAG AGGCCATGT 1080
 GCTGAGAAAT GCAATGGGCC ATGAGGTGCA GAGGCTGACG GTCACTGATC TGGACGCCCC 1140
 CAACTACCA GCGTGGCGTG CCACCTACCT TATCATGGGC GGTGACGAGG GGGACCATTT 1200
 TACCATCAC ACCACCTCTG AGAGCACCCA GGGCATCTG ACAACACGGA AGGGTTTGA 1260
 TTTTGAAGCC AAAAACACAG ACACCCCTGA CGTTGAAGTG ACCAACGAGG CCCCCTTTGT 1320
 GCTGAAGCTC CCAACCTCCA CAGCCACCAT AGTGGTCCAC GTGGAGGATG TGAATGAGGC 1380
 ACCCTGTGTT GTCCACACCT CCAAGTCTGT TGAAGTCCAG GAGGGCATCC CCACCTGGGA 1440
 GCTGTGTGT GTCTACACTG CAGAAGACCC TGACAAGGAG AATCAAGA TCAAGTACCG 1500
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 GGTCTTGGCC ATGGACAATG GAAGCCCTCC CACCACTGGC ACGGGAACCC TTCTGCTAAC 1680
 ACATGATGAT GTCAATGACC ATGGCCAGT CCTGAGCCC CGTCAGATCA CCATCTGCAA 1740
 CCAAAGCCCT GTGCCCCAGG TGCTGAACAT CACGACACAG GACCTGTCTC CCACACCTC 1800
 CCTTTTCCAG GCCCAGCTCA CAGATGACTC AGACATCTAC TGGACGGCAG AGGTCAACGA 1860
 GGAAGGTGAC ACAGTGGTCT TGTCCCTGAA GAAGTCTCTG AAGCAGGATA CATATGACGT 1920
 GCACCTTTCT CTGCTGACCC ATGGCAACAA AGAGCAGCTG ACGGTGATCA GGGCCACTGT 1980
 GTGCGACTGC CATGGCCATG TCGAAACCTG CCTGGAACC TGAAGGGAG GTTTCATCCT 2040
 CCTGTGCTG GGGCTGTCT TGGCTCTGCT GTTCTCTCTG CTGGTGTCTC TTTTGTGTGT 2100
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 CGTCTCTAC TATGCGGAAG AGGGGGGTGG CBAAGAGGAC CAGGACTATG ACATCACCCA 2220
 GCTCCACCGA GGTCTGGAGG CAGGGCCGGA GTTGGTCTC CGCAATGACG TGGCACCAAC 2280
 CATCATCCCG ACACCCATGT ACCTGCTCTG GCCAGCCAAC CCAGATGAAA TCGGCACTT 2340
 TATAATTGAG AACCTGAAGG CGGCTAACAC AGACCCACA GCCCGCCCT ACACACCTC 2400
 CTTGGTGTTC GTTGTCTTCC TIAGCCTTTC AGGATGGAGG AATGTGGGCA GTTGTACTTC 2460
 CTCGCTCTC GACCAAGACC AAGATTACBA TTATCTGAAC GAGTGGGGCA GCGCTTCAA 2520
 GAAGCTGGCA CAGATGTACG GTGGCGGGGA GACGACTAG CGGCTCTGCC TGCAGGCTAG 2580
 GGAACCAAC GTGAGGCCAC AGAGCATCTC CAAGGGGTCT CAGTTCCCCC TTCAGCTGAG 2640
 GACTCGGAG CTTGTGAGGA AGTGGCCGTA GCAACTTGGC GGAGACAGGC TATGAGTCTG 2700
 ACGTTAGAGT GTTGTCTTCC TIAGCCTTTC AGGATGGAGG AATGTGGGCA GTTGTACTTC 2760
 AGCAGTGAAC ACCTCTCCAC CTGGGCCAGG GTTGCCTCAG AGGCCAAGTT TCCAGAGGCC 2820
 TCTTACTGTC CTAATAATGC TCAACCTCTG GTCCCTGGCC TGGGCTTCTC GTGAGTAC 2880
 TACAGTGGAC TTTCTCTCTG GAATGGAACC TTCTTAGGCC TCTGGGTGCA ACTTATTTT 2940
 TTTTTTAAAT GCTATCTTCA AAACGTTAGA GAAAGTCTCT CAAAGTGCA GCCCAGGCT 3000
 GCTGGGCCCA CTGGCCCTCC TGCAATTTCTG GTTCCAGAC CCCAATGCTT CCATTCGGA 3060

TGGATCTCTG CGTTTTTATA CTGAGTGTGC CTAGGTTGCC CCTTATTTTT TATTTTCCCT 3120
 GTTGCCTTGC TATAGATGAA GGGTGAAGAC AATCGTGTAT ATGTACTAGA ACTTTTTTAT 3180
 TAAAGAAACT TTTCACGAA AAAA 3205

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Seq ID NO: C84 DNA Sequence
 Nucleic Acid Accession #: NM_005629.1
 Coding sequence: 639..2546

10 1 11 21 31 41 51
 TAGTCGAGC GAGGTGCGA GTGCTGAGC CCGCCGCGC CCGAGAGCG GCTGCAGCCG 60
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 CCGCCGCCC CACCCGCCA GAGTCTGCG GCGAGCGCG CAGCCTCCG GGGCCCGCGC 180
 CCGGGCGGG GCGCGCGGC ACAGGCCCT GCTCCGCGC TCGTTTGCAG ACCCGCGCGC 240
 15 CGATGTGCG CCGCGCGCC TAGGATGAG TCTCGGTCG GCGAGGAGC CCGCGCGCC 300
 GCGCGCGCC GAGCGCGCG CAGGAGCCT GCGAGCGCG CCGCGCGCG CCGCGCGCC 360
 GCGCGCGCC GCGCGCGCC GCGCGCGCC GCGCGCGCC CACACATGAG ATTCTTCAGG 420
 CTCACCTTC AGTGCTTGT GAGTCTGCT TGAATGCGC GCGCGCGCC CCGACCCGCG 480
 20 GTCGCGCGC CCGCGCGCT CCGCGCGCC GCGCGCGCC GCGCGCGCC GCGCGCGCC 540
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 25 CGTGTGCGC GCGCGCGCC GCGCGCGCC GCGCGCGCC GCGCGCGCC GCGCGCGCC 840
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 35 TCTGTCTGC GAGGCGGTC AAATCCACG GAAAGATGT GTACTTACT GCTACATTCC 1440
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 45 GCTCTCTCA CCGCTTCCC GCGCTTACT ACTCTGTTT CCAAGGAGG ATCTCTGTG 1980
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 CCTGTATGAT CCGGTACCG CCTGTCCCT GATGAAATG GTGTGTGTG TTCTTACCC 2220
 50 CCGTGTCTG CATGGCATC TTCTATCTA ACGTTGTGT CTACGAGCG CTGCTTACA 2280
 ACACACCTA CCGCTTCTG TGGTGGGTC AGGCTATGG CTGGGCTTC GCGCTTCTC 2340
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 55 GCGTAGCAG CCGCTTCTG GCGCTTCTG CAGCTTCTG GCGCTTCTG CCGCTTCTG 2640
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 60 CAGTGTGCA CTCTTCTGC CCGTGCAGC CCGACCCCT GCGCACCTT CAGGCTCTG 2880
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 65 CCAGTATCA TTGTGTGAG TTGGGTGCA GTGCACGCT GCGTGTGAG GAGAGTATA 3180
 TATAGATCT TATCTTTAG CAAAGGTGA TGCCAGATG AAATGGCGC TCTGGGCAA 3240
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 TTTTAAAAA GAGGAAGAG CCAAAACCA CTCTCTCTA CCACTCCAT CCGTGTGAG 3360
 CCTACCTAC CCGTGTGCC CTAGCCAGG AGTGTGAAT TATAGATCT ACTTCTAG 3420
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 GTCCCGAGC CCAGACTGA TTGAAAGT GCAATGTTG GCGCTCGGG CTGTCCCGC 3540
 GCTGTCTCT TGCACAGT CTGTGGGCA AGAGGCTGA ATATTCTGT CTGGTGTCT 3600
 GCGCTGCTA CCGGCTCTG TCAGGCTTC CACCTGTGC GCGCACACC CCGAGGAGG 3660
 GACCTTGAC ACAGCTCCA GGTCCAGCT TAAGGTGGT GCACTTCCG CACCTCAGT 3720
 75 TGTCTGTGA GCAGCTTAA CCAAGTTTG TGTGTCACT CAGAGTCCG GCGCGTGA 3780
 TGAACCAAG AAAGCTTCC CCGACCCCA GACAGAGCT GCGAGGCTG GCTGTGTA 3840
 GGGTGGCGG CCGGCGGGA CATTCTACT GTCTAAAAA CACTGCGAG CATAGCAATA 3900
 AAAACATGT ATTTTCC 3917

80

Seq ID NO: C85 DNA Sequence
 Nucleic Acid Accession #: NM_005616.1
 Coding sequence: 180..1658

1 11 21 31 41 51
 TAGTCGCGG TCCCGAGTG AGCAGCCAG GAGAGCAGG ACCAAACGAC GGGGGTCGA 60

| | | | | | | | |
|----|------------|------------|------------|------------|-------------|------------|------|
| 5 | GTGAGAGTCG | CAGTGGGAGT | CCCGGGACCG | GAGCAGGAGC | CTGAGCGGGA | GAGCGCCGCT | 120 |
| | CGCACGCCCG | TCCGCCACCG | CGTACC03GC | GCAGCCAGAG | CCACCAGCGC | AGCGCTGCCA | 180 |
| | TGGAGCCGAG | CAGCAGAGAG | CTGACGGGTC | GCCTCATGCT | GGCTGTGGGA | GGAGCAGTGC | 240 |
| | TTGGCTCCCT | GCAGTTTGGC | TACAACACTG | GAGTCATCAA | TGCCCCGAG | AAGGTGATGC | 300 |
| | AGGAGTTCTA | CAACCAGACA | TGGGTCCACC | GCTATGGGGA | GAGCATCCTG | CCCACCAAGC | 360 |
| | TCACCACGCT | CTGCTCCCTC | TCAGTGGCCA | TCTTTTCTGT | TGGGGGCATG | ATTGGCTCCT | 420 |
| | TCTCTGTGGG | CCTTTTCGTT | AACCGCTTTG | GCCGSCGGAA | TTCAATGCTG | ATGATGAACC | 480 |
| | TGCTGGCCCT | CGTGTCCGOC | GTGCTCATGG | GCTTCTCGAA | ACTGGGCAAG | TCCTTTGAGA | 540 |
| 10 | TGCTGATCCT | GGGCCBCTTC | ATCATCGGTG | TGTACTGCGG | CCTGACCACA | GGCTTCGTGC | 600 |
| | CCATGTAATG | GGGTGAAGTG | TCACCCACAG | CCTTTCTGTG | GGCCCTGGGC | ACCCTGCACC | 660 |
| | AGCTGGGCGT | CGTCBTGGGC | ATCCTCATCG | CCCAGGTGTT | CGGCCCTGGAC | TCCATCATGG | 720 |
| | GCACAAGGGA | CCGTGTGCCC | CTGCTGCTGA | GCATCATCTT | CATCCCGGCC | CTGCTGCAGT | 780 |
| | GCATCGTGCT | GCCCTTCTGC | CCCGAGAGTC | CCCGCTTCCT | GCTCATCAAC | CGCAACBAGG | 840 |
| 15 | AGAACC03GC | CAAGAGTGTG | CTAAAGAAGC | TGCGCGGAC | AGCTGACGTG | ACCCATGACC | 900 |
| | TGCAGGAGAT | GAAGGAGAGG | AGTCGGCAGA | TGATGCGGGA | GAAGAAGGTC | ACCATCTCTG | 960 |
| | AGCTGTTCCG | CTCCCCCGCC | TACCGCCAGC | CCATCCTCAT | CGCTGTGGTG | CTGCAGCTGT | 1020 |
| | CCCAGCAGCT | GTCTGGCCTC | AA03CTGTCT | TCTATTACTC | CACGAGCATC | TTGAGAGAAG | 1080 |
| | CGGGGGTGCA | GCAGCCTGTG | TATGCCACCA | TTGGCTCCGG | TATGCTCAAC | ACGGCCTTCA | 1140 |
| 20 | CIGTGTGTGC | GCTGTTTGTG | GTCGAGCGAG | CAGGCGCGAC | GACCTTGAC | CTCATAGGCT | 1200 |
| | TGCTGGGCGT | GGCGGTTGT | GCCATACTCA | TGACCATCGC | GCTAGCAGTG | CTGGAGCAGC | 1260 |
| | TACCTGTGAT | GTCTATCTCG | AGCATCTGTG | CCATCTTTGG | CTTTGTGGCC | TTCTTTGAGG | 1320 |
| | TGGGTCTGGG | CCCATCATCG | TGGTTCATCG | TGGCTGAAC | CTTCAGCCAG | GGTCCACGTC | 1380 |
| | CAGCTGGCGT | TGCGGTGTGA | GGCTTCTCCA | ACTGGACCTC | AAATTTTCAT | GTGGGCGATG | 1440 |
| 25 | GCTTCCAGTA | TGTGGAGCAA | CTGTGTGTGC | CCTAGCTCTT | CATCATCTTC | ACTGTGTCTC | 1500 |
| | TGGTCTCTGT | CTTCATCTTC | ACCTACTTCA | AAGTTCCTGA | GACTAAAGGC | CGGACCTTGC | 1560 |
| | ATGAGATGCG | TTCCGGCTTC | CGGCAGGGGG | GAGCCAGCCA | AAGTGATAAG | ACACCCBAGG | 1620 |
| | AGCTGTTCCA | TCCCTCGGGG | GCTGATTTCC | AAGTGTGAGT | CGCCCGAGAT | CACGAGCCCG | 1680 |
| | GCCTGCTCCC | AGCAGCCCTA | AGGATCTCTC | AGGAGCACAG | GCAGCTGGAT | GAGACITCCA | 1740 |
| 30 | AACCTGACAG | ATGCTACGCG | AGCCGGGCTT | GGGGCTCCTT | TCTCCAGCCA | GCAATGATGT | 1800 |
| | CCAGAGGAAT | ATTCAGGACT | TAACGGCTCC | AGGATTTTAA | CAAAAGCAG | ACTGTTGCTC | 1860 |
| | AAATCTATTC | AGACAAGCAA | CAGGTTTAT | AATTTTAA | TACTGATTT | TGTTATTTT | 1920 |
| | ATATCAGCCT | GAGTCTCTCG | TGCCACATC | CCAGGCTTCA | CCCTGAATGG | TTCCATGCTT | 1980 |
| | GAGGGTGGAG | ACTAAGCCCT | GTGAGACAC | TTGCCCTCTT | CACCCAGCTA | ATCTGTAGGG | 2040 |
| 35 | CTGGACCTAT | GTCTTAAGGA | CACACTAATC | GAACATGAA | CTACAAAGCT | TCTATCCAG | 2100 |
| | GAGGTGGCTA | TGGCCACC03 | TTCTGCTGGC | CTGGATCTCC | CCACTCTAGG | GCTCAGGCTC | 2160 |
| | CATTAGGATT | TGCCCTTTC | CATCTCTTCC | TACCAACCA | CTCAAATTA | TCTTTCTTTA | 2220 |
| | CCTGAGACCA | TTGGGAGACA | CTGGAGTGCA | GGGAGGAGAG | GGGAAGGGCC | AGTCTGGGCT | 2280 |
| | GGCGGTTCT | AGTCTCTCTT | GCACTGAGGG | CCACACTATT | ACCATGAGAA | GAGGGCCTGT | 2340 |
| 40 | GGGAGCTGCG | AACTCACTG | CTCAAGAGA | CATGGAGACT | CCTGCGCTGT | TGTTATAGA | 2400 |
| | TGCAAGATAT | TTATATATAT | TTTGGTGTG | CATATATAA | TACAGACACT | AAGTTATAGT | 2460 |
| | ATATCTGGAC | AAGCCAACTT | GTAAATACAC | CACCTCCTC | CTGTTACTTA | CTTAAACAGA | 2520 |
| | TATAAATGGC | TGGTTTTTAG | AAACATGGTT | TTGAATGCT | TGTGGATTGA | GGGTAGGAGG | 2580 |
| | TTTGGATGGG | AGTGAGACAG | AAGTAAGTGG | GGTTGCAACC | ACTGCAACGG | CTTAGACTTC | 2640 |
| 45 | GACTCAGGAT | CCAGTCCCTT | ACA0GTACCT | CTCATCAGTG | TCCTCTTGCT | CAAAATCTG | 2700 |
| | TTTGATCCCT | GTTACCCAGA | GAATATATAC | ATTCTTTATC | TTGACATTCA | AGGCATTCTT | 2760 |
| | ATCACATATT | TGATAGTTGG | TGTTCAAAA | AACACTAGTT | TTGTGCCAGC | CGTGATGCTC | 2820 |
| | AGGCTTGAAA | TGCAATTATT | TTGAATGTGA | AGGGAA | | | 2880 |

Seq ID NO: C86 DNA Sequence
Nucleic Acid Accession #: XM_035292.2
Coding sequence: 53..1576

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| 55 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | GCTCSCCTGG | CGCGGCTCC | CGGGTGTCCC | AGGCCCGGCC | GGTGCGCAGA | GCATGGCGGG | 60 |
| | TGCBGGCCCG | AAGCGCGCG | CGCTAGCGGC | GCCGCGCGCC | GAGGGAAGG | AAGAGGCGCG | 120 |
| | GGAGAAGATG | CTGGCGGCCA | AGAGCGCGGA | CGGCTGGGCG | CGGCGAGGCG | AGGGCGAGGG | 180 |
| | CGTGACCTCT | CAGCGGAACA | TCA0GCTGCT | CAAGCGCGTG | GCATCATCG | TGGGGA0CAT | 240 |
| 60 | TATCGGCTCG | GAGCTCTTGG | TGACGCGCAC | GGCGTGTCTC | AAGGAGGCG | GCTCGCGGG | 300 |
| | GCTGGGCGCG | GTGTGTGGG | CGCGTGGCG | CGTCTTCTCC | ATCGTGGGCG | CGCTCTGCTA | 360 |
| | CGCGGAGCTC | GGCACCACCA | TCTCCAAATC | GGCGGCGGAC | TACGCTTACA | TGCTGGAGGT | 420 |
| | CTACGGCTCG | CTGCCGCGCT | TCCTCAAGCT | CTGGATCGAG | CTGCTCATCA | TCGCGGCTTC | 480 |
| | ATC0CAGTAC | ATGGTGGGCC | TGGTCTTTCG | CACCTACCTG | CTCAAGCCGC | TCCTCC0CAC | 540 |
| 65 | CTGCCCGGCG | CCGAGGAGGG | CAGCCAGGCT | CGTGGCCTGC | CTCTGGGTGC | TGCTGCTCAC | 600 |
| | GGCGGTGAAC | TGCTACAGCG | TGAAGGCGCG | CACCCGGGTC | CAGGATGCGT | TTGCCCGCGC | 660 |
| | CAAGCTCCTG | GCCCTGGGCC | TGATCATCCT | GCTGGGCTTC | GTCCAGATCG | GAAAGGGTGA | 720 |
| | TGIGTCCAAT | CTAGATCCCA | ACTTCTCAT | TGAAGGCACC | AAACTGGATG | TGGGGAACAT | 780 |
| | TGTGCTGGCA | TTATACAGCG | GCCTCTTTGC | CTATGAGGGA | TGGAATTACT | TGAATTTGCT | 840 |
| 70 | CACAGAGGGA | ATGATCAACC | CTACAGAAA | CCGCCCCCTG | GCCATCATCA | TCTCCCTGCC | 900 |
| | CATCGTGACG | CTGGGTAGCG | TGCTGACCAA | CCTGGCTTAC | TTCAACACCC | TGTCACCGGA | 960 |
| | GCAGATGCTG | TGTCGAGG | CCGTGGCGGT | GGACTTCGGG | AACATATACC | TGGGCGTCTT | 1020 |
| | GTCTCGGATC | ATGCCGCTCT | TGCTGGGCGT | GTCTTGTCTT | GGCTCGGTCA | ATGGGTCTCT | 1080 |
| | GTTTACATCC | TCCAGGCTCT | TCTTGTGGGG | GTCCCGGGAA | GGCCACCTGC | CCTCCATCCT | 1140 |
| 75 | CTCCATGATC | ACCGGCTGCG | TCTTCA0CCC | CGTGGCGTCC | CTGGTGTTC | CGTGTGTGAT | 1200 |
| | GACGCTGCTC | TACGCTTCTT | CCAGGACAT | CTTCTCGGTC | ATCAACTTCT | TCAGCTTCTT | 1260 |
| | CAACTGGCTC | TGCGTGGCCC | TGGCCATCAT | CGCATGATC | TGGCTCGGCC | ACAGAAAGCC | 1320 |
| | TGAGCTTGAG | CGGCCCATCA | AGGTGAACCT | GGCCTGCGCT | GTGTTCTTCA | TCCTGGGCTG | 1380 |
| | CTCTTCTCTG | ATCGGCGCTC | CTTCTTGGA | GACACCGGTC | GAGTGTGGCA | TGGCTTCCAC | 1440 |
| 80 | CATCATCCTC | ACCGGCTGCG | CCGTCTACTT | CTTGGGGGTC | TGGTGGAAAA | ACAGGCCCAA | 1500 |
| | GTGGCTCCTC | CAGGGCATCT | TCTCCACGAC | CGTCTGTGT | CAGAACTCTA | TGCAGGTGGT | 1560 |
| | CCCCCAGGAG | ACATAGCCAG | GAGGCGGAGT | GGCTGCCGGA | GGAGCATGC | | 1609 |

Seq ID NO: C87 DNA Sequence
Nucleic Acid Accession #: NM_005268.1

Coding sequence: 168..989

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5 1 11 21 31 41 51
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AGCCCCGAGG AGTAGTCACT CAGTAGCAGC TGACGCGTGG GTCCACCATG AACTGGAGTA 180
TCTTTGAGGG ACTCCTGAGT GGGGTCAACA AGTACTCCAC AGCCTTTGGG CGCATCTGGC 240
TGCTCTCGGT CTTCATCTTC CGCGTCTGG TGTACTTGGT GACGGCCGAG CGTGTGTGGA 300
10 GTGATGACCA CAAGGACTTC GACTGCAATA CTGCGCAGCC CGGTGCTCC AACGTCTGCT 360
TTGATGAGTT CTTCCTGTG TCCCATGTGC GCCTCTGGGC CCTGCAGCTT ATCCTGGTGA 420
CATGCCCTTC ACTGCTCGTG GTCATGCACG TGGCCTACCG GGAGGTTTCG GAGAAGAGGC 480
ACCGAGAAGC CCATGGGGAG AACAGTGGGC GCCTCTACCT GAACCCCGGC AAGAAGCGGG 540
GTGGGCTCTG GTGGACATAT GTCTGCAGCC TAGTGTTCAG GGCGAGCGTG GACATCCTCT 600
15 TTCTCTATGT GTTCCACTCA TTCTACCCCA AATATATCCT CCTCCTGTG GTCAAGTGCC 660
ACGACAGATC ATGTCCCAAT ATAGTGGACT GCTTCATCTC CAGGCCCTCA GAGAAGAACA 720
TTTTACCTCT CTTCATGTG GCCACAGCTG CCATCTGCAT CTTGCTCAAC CTGCTGGAGC 780
TCATCTACCT GGTGAGCAAG AGATGCCAAG AGTGCTTGGC AGCAAGGAAA GCTCAAGCCA 840
TGTCACACAG TCATCACTCC CACGGTACCA CCTCTCCTG CAACACAGAG GACTCCTTT 900
20 CGGGTGACCT CATCTTTCTG GGTCTAGACA GTCATCTCC TCTCTTACCA GACCGCCCCC 960
GAGACCATGT GAAGAAAACC ATCTTGTGAG GGGCTGCCTG GACTGGTCTG GCAGGTGGG 1020
CCTGGATGGG GAGGCTCTAG CATCTCTCAT AGGTGCAACC TGAGAGTGGG GGAGCTAAGC 1080
CATGAGGTAG GGGCAGGCAA GAGAGAGGAT TCAGACGCTC TGGGAGCCAG TTCTAGTCC 1140
TCAACTCCAG CAACCTGCC CAGCTCAGC GCACTGGGCC AGTTCCOCT CTGCTCTGCA 1200
25 GCTCGGTTTC CTTTCTCTAG ATGGAATAG TGAGGGCCAA TGC 1243

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Seq ID NO: C88 DNA Sequence
Nucleic Acid Accession #: NM_005130
Coding sequence: 98..802

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30 1 11 21 31 41 51
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CGTGTGCTCA GAACAAGGTG AACGCCGAGC TGCAGCCATG AAGATCTGTA GCTCAOCCCT 120
GCTCTCCTTC CTCTACTGCG CTGCTCAGGT GCTCCTGGTG GAGGGGAAAA AAAAAGTGAA 180
GAATGGACTT CACAGCAAGG TGGTCTCAGA ACAAAGGAC ACTCTGGGCA ACACCCAGAT 240
TAAGCAGAAA AGCAGGCCCG GGAACAAAGG CRAAGTTGTC ACCAAGAGCC AAGCCAACTG 300
CAGATGGGCT GCTACTGAGC AGGAGGAGGG CATCTCTCTC AAGGTTGAGT GCACTCAATT 360
GGACCATGAA TTTTCTGTG TCTTGTCTGG CAATCCAACC TCATGCTTAA AGCTCAAGGA 420
40 TGAGAGAGTG TATTGGAAAC AAGTTGCCCG GAATCTGCGC TCACAGAAAG ACATCTGTAG 480
ATATTCCCAAG ACAGCTGTGA AAACCAAGGT GTGCAGAAAG GATTTTCCAG AATCCAGTCT 540
TAAGCTAGTC AGCTCCCACT TATTGGGAA CACAAAGCCC AGGAAGGAGA AAACAGAGAT 600
GTCCCCCAGG GAGCACATCA AGGGCAAGA GACCAOCCOC TCTAGCCTAG CAGTGACCCA 660
GACCATGGCC ACCAAGCTC CCGAGTGTGT GGAGGACCCA GATATGGCAA ACCAGAGGAA 720
45 GACTGCCCTG GAGTCTGTG GAGAGACTTG GAGCTCTCTC TGCACTTCT TOCTCAGCAT 780
AGTGCAGGAC ACCTCATGT AATGAGGTCA AAAGAGAAGG GGTTCCTTTA AGAGATGTCA 840
TGTCGTAGT CCTCTGTAT ACTTTAAGC TCTCTACAGT CCCCCAAAAA TATGAACCTT 900
TGTCGTAGT GAGTGCAAGC AAATATTAA ACAAGTTTG TATTTTTCG TTTTGTGTTT 960
50 TGGAAATTGC CTTTCTTTTC TTGGATGCGA TGTTCAGAGG CTGTTTCTG CAGCATGTAT 1020
TTCCATGGCC CACACAGCTA TGTGTTGAG CAGCGAAGAG TCTTTGAGCT GAATGAGCCA 1080
GAGTGATTAAT TTCAGTGCAA CGAATTTCT GCTGAATTAA TGGAATAAAA ACTCTGGGTG 1140
TTTTTCAAAA AAAAAAAAAA AAA 1163

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Seq ID NO: C89 DNA Sequence
Nucleic Acid Accession #: BC022542
Coding sequence: 274..927

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TGGCGGCTCG GGTGGCGGGG GTTCGGGGCG CCGCTGCTG GCTCCTCGGG GCGGCGAGCG 180
GECTCAGCGG CGGGCCCGCC ACGGCCTTCA CCGCGCGCGG CTCTGACGCC GGCATAAGGG 240
60 CCATGTGTTC TGAATTATT TTGAGGCAAG AAGTTTGAAG AGATGGTTTC CACAGAGACC 300
TTTTAATCAA AGTGAAGTTT GGGGAAGCA TTGAGGACTT GCACAGGTGC CGTCTCTTAA 360
TTAAACAGGA CATTCCTGCA GGACTTTATG TGGATCCGTA TGAATTTGGCT TCATTACGAG 420
AGAGAAACAT AACAGAGGCA GTGATGGTTT CAGAAATTTT TGATATAGAG GCCCCTAACT 480
ATTTGTCCAA GGAGCTGAAA GTTCTCATTT ATGCCAGAG AGATTCAAG TGCATTGACT 540
65 GTTTTCAGC CTTTTGCGCT GTGCACTGCC GCTATCATCG GCGGCACAGT GAAGATGGAG 600
AAGCCTCGAT TGTGGTCAAT AACCCAGATT TGTGTAGTTT TTGTGACCAA GAGTTCCGGA 660
TTTTGAATG CTGGGCTCAC TCGAAGTGG CAGCCCTCTG TGCTTTGGAT AATGAGGATA 720
TATGCCAATG GAACAGATG AAGTATAAAT CAGTATATAA GAATGTGATT CTACAAGTTC 780
CAGTGGGACT BACTGTACAT ACCTCTCTAG TATGTTCTGT GACTCTGCTC ATTACAATCC 840
70 TGTGCTCTAC AATGACTCCT GTAGCAGTTT TCAAAATATG CCAATTTTCC CTATAAGTTT 900
TATGTAGTAA AATGCTTCC TTAATCTTTT GTCTTCATTT GTGGCCAAAA TTATGTTTAC 960
TTCTCTTAGA ATTAATTAAT TTTATCTTTT TCTCAGCTAA TTCCAAAATG TAGTGTCTTA TTGATGGAT 1020
TAGAGGAAT TTGGGATCAT TCTCAGCTAA TTCCAAAATG TAGTGTCTTA TTGATGGAT 1080
CCTTGGTAAT CCTCAAGCAT CAGATGCCAT AAGGGGAAAC TTAATTTCTG TAAATTAATG 1140
75 TTTATTTGT GAGAAGTGAC TTTATCTTCA TTTGGGGTAG AAAAAATTAT TCTTTATGTA 1200
GTAGAGACAA ATTATTCTCA TTTTGCAAGT ACTTTCATTT TAAGCTACAA ATTGAGAAA 1260
CCGTATATGA TAAGATAAAA ATAGGCCAGG CACAGTGGCT CACACCTGTA ATCCAGCAC 1320
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ACCTGTCTC TACTAAAAAT ACAAAAGTTA GCTGGGGCTG GTGGTGGGCA TCTGTAGTCC 1440
80 CAGCTAATTG GAAGGGTGAG GCGGAGGAT CGCTTGAACC TGGAGGGCG AGGTTCCAGA 1500

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5
 GAGCCAAGAT CGCACCCTG CACTACAGCC TGGGCGACAG AACGAGACCC TGTCTOCAA 1560
 GGAAAAACAA AAAAGAGAA TAAAATAATT TGGATGAAAA TCATGTTTAT TTAATAGTA 1620
 ATGTCTATGAG ACTATTAAG ATGIGCCAGA GTTTCATGA AAATCATTA AGTAGGACAG 1680
 CTAAGAAAT ATATTAATA TAAAAATTAT TGATAATCTT AAATTATTGA TTATTCCTTA 1740
 ACACACTCCA TCTCTCTTT ACATTTTATC ATGTTTCTTT TGAATATATG AATTGGCAA 1800
 GGACITGATG AAACAGAGTA CTAAGATTG GTACAGAGTA TGTGAGGAAG ACAACTCAGA 1860
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10
 Seq ID NO: C90 DNA Sequence
 Nucleic Acid Accession #: NM_004994
 Coding sequence: 20..2143

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 CCTGAGAACC AATCTACCG ACAGGCAGCT GGCAGAGGAA TACCTGTACC GCTATGGTTA 180
 CATCTGGGTG CGAGAGATGC GTGAGAGATC GAAATCTCTG GGGCTGTGCG TCCTGCTTCT 240
 CCAGAAGCAA CTGTCCCTGC CCGAGACCG TGAGCTGGAT AGCGCCACGC TGAAGGCCAT 300
 GCGAACCCCA CGGTGCGGG TCCAGACCT GGCAGATTC CAACCTTTG AGGGCGACCT 360
 CAATGGGAC CACCAACA TCACCTATGT GATCCAAAAC TACTCGGAAG ACTTGCCTCG 420
 GCGGTGATG GACGACGCT TTGCCGCGC CTTCGCACTG TGGAGCGCGG TGAAGCGCT 480
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 CGACGTGAAT GGCATCGGC ACCTCTATGG TCTCGCCCT GAACCTGAGC CACGGCTTCC 1380
 AACCCACACC ACACCGCAGC CACCGGCTCC CCGACGGTC TGCCCAACCG GACCCCCAC 1440
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 CAAACTGGTA TTCTGTCTG GAGGAAAGGG AGGAGTGGAG GTGGGCTGGG CCTCTCTTC 2280
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55
 Seq ID NO: C91 Sequence
 Nucleic Acid Accession #: NM_000213
 Coding sequence: 188..5656

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 CAGCGTCAGC CTCTCTGGGA CCTTGGCAA CCGCTGCAAG AAGGCCCCAG TGAAGAGCTG 300
 CACGGAGTGT TCCCTGTGCG ATAAGGACTG GCGCTACTGC ACAGACGAGA TGTTCAGGGA 360
 CCGCGCTGTC AACACCCAGG CCGAGCTGCT GCGCGCGGCG TGCCAGCGCG AGAGCATGCT 420
 GGTCTAGGAG AGCAGCTTCC AAATCAGAGA GAGAGCCAG ATTGACCA CACTGCGGCG 480
 CAGCATGATA TCCGCCAAG GCTTGGCGGT CCGTCTGCG CCGGTGAGG AGCGGCATT 540
 TGAGCTGGAG GTGTTTGAAG CACTGGAGAG CCGCTGGAC CTGTACATCC TCATGGACTT 600
 CTCCAACCTC ATGTCCGATG ATCTGGACAA CCTCAGAGAG ATGGGCGAGA ACCTGGCTCG 660
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 CAGGCTCCCG CAGACGACA TAGAGCCTGA GAAGCTGAG GAGCCCTTGC CCAACAGTGA 780
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 TAACTGCGAG GAGAGCGGA TCTCAGGCA CCTGGATGCT CCGAGGCGG GCTTGGATGC 900
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 GTACAGACA CAGAGTACC CGTGGGTGCC CACCTGGTG CCGCTGCTCG CCAAGCACAA 1140
 CATCATCCCC ATCTTGTCTG TCACCAACTA CTCTATAGC TACTACGAGA AGCTTCACAC 1200
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 CCGAGGCTCT CCGACAGAG TCACTCCAA GATGTTCCAG AAGACGAGGA CTGGGTCTCT 1380
 TCATCTCGG CCGGGGAG TGGGTATATA CAGGTGCGG CTGGGGGCC TTGAGCAGT 1440

| | | | | | | | |
|----|-------------|------------|-------------|-------------|------------|-------------|------|
| | GGATGGGACG | CACGTGTGCC | AGCTGCCGGA | GGACCCAGAAG | GGCAACATCC | ATCTGAAACC | 1500 |
| | TTCCCTCTCC | GAGGGCTCTA | AGATGGAGCG | GGGCATCATC | TGTGATGTGT | GCACCTGCGA | 1560 |
| | GCTGCAGAAA | GAGGTGCGGT | CAGCTCGCTG | CAGCTTCAAC | GGAGACTTCG | TGTGCGGACA | 1620 |
| 5 | GTGTGTGTGC | AGCGAGGGCT | GGAGTGGCCA | GACCTGCAAC | TGCTCCACCG | GCTCTCTGAG | 1680 |
| | TGACATTACG | CCCTGCTCTC | GGGAGGGCCA | GGACAAGCCG | TGCTCCGGCC | GTGGGGAGTG | 1740 |
| | CCAGTGCGGG | CAGTGTGTGT | GCTACGGCGA | AGGCCGCTAC | GAGGGTCAGT | TCTGCGAGTA | 1800 |
| | TGACAACCTC | CAGTGTCCCC | GCACTTCCCG | GTTCCTGTGC | AATGACCGAG | GACGCTGCTC | 1860 |
| | CATGGGCGAG | TGTGTGTGTG | AGCCTGTGTG | GACAGGCCCA | AGCTGTGACT | GTCCCTCCAG | 1920 |
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| 10 | TGCGCGCTGC | CAGTGCACAC | AGCAGTCCGT | CTACACGGAC | ACCATCTGCG | AGATCAACTA | 2040 |
| | CTCGGCGATC | CACCGGGGCC | TCTGCGAGGA | CCTACGCTCC | TGCGTGCAAT | GCCAGGCGTG | 2100 |
| | GGGACCGGCG | GAGAGAAGAG | GGCGCACGTG | TGAGGAATGC | AACTTCAAGG | TCAAGATGGT | 2160 |
| | GGACGAGCTT | AAGAGAGCCG | AGGAGGTGGT | GGTGCCTGCG | TCCTTCCGGG | ACGAGGATGA | 2220 |
| | CGACTGCACC | TACAGCTACA | CCATGGAAAG | TGACGGCGCC | CCTGGGCCCA | ACAGCACTGT | 2280 |
| 15 | CCTGCTGCAC | AAGAAGAAGG | ACTGCCCTCC | GGGCTCCTTC | TGGTGGCTCA | TCCCGCTGCT | 2340 |
| | CCTCCTCTCT | CTGCGCTCTC | TGGCCTCTGT | ACTGCTGCTA | TGCTGGAGT | ACTGTGCTGT | 2400 |
| | CTGCAAGGCT | TGCTTGGCAC | TTCTCCCGTG | CTGCAACCGA | GGTCACATGG | TGGGCTTTAA | 2460 |
| | GGAAAGACCAC | TACATGCTGC | GGGAGAACTT | GATGGCTCTT | GACCACCTGG | ACACGCCCAT | 2520 |
| 20 | GCTGCGCAGC | GGGAACCTCA | AGGCGCTGTA | CGTGGTCCGC | TGGAAAGTCA | CCAAACAACAT | 2580 |
| | GCAGCGGCTT | GGCTTTGGCA | CTCATGCCGC | CAGCATCAAC | CCCAACAGAG | TGGTGCCTTA | 2640 |
| | CGGGCTGTGC | TTGCGCTCTG | CCCGCTTTTG | CACCGAGAAC | CTGCTGAAGC | CTGACACTCG | 2700 |
| | GGAGTGGCCG | GAGCTGCGCC | AGGAGGTGGA | GGAGAACCTG | AACGAGGTCT | ACAGGACGAT | 2760 |
| | CTCCGGTGTG | CACAAGCTCC | AGCAGACCAA | GTTCCGGCAG | CAGCCCAATG | CGGCGAAGAA | 2820 |
| 25 | GCAAGACAC | ACCATTGTGG | ACACAGTGGT | GATGGCGCCC | CGCTGGGCCA | AGCCGGCCCT | 2880 |
| | GCTGAAGCTT | ACAGAGAAGC | AGGTGGAAAC | GAGGGCTTTC | CACGACCTCA | AGGTGGCCCT | 2940 |
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| | CGTGGAGCTG | CGCTGCGTAC | GGGTGCCCTT | CTTTATCCGG | CCTAGGAGTG | ACGACGAGAA | 3060 |
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| 30 | GGTAAACATC | ACCATCATCA | AGGAGCAAGC | CAGAGACGTG | GTGTCTTTTG | AGCAGCCTGA | 3180 |
| | GTCTCTCGTC | AGCCGCGGGG | ACCAGGTGGC | CCGCTCCCTT | GTCTCTCGGC | GTGTCTCTGA | 3240 |
| | CGGCGGGAG | TCCAGGTCTT | CCTACCGCAC | ACAGGATGGC | ACCGCGCAGG | GCAACCGGGA | 3300 |
| | CTACATCCCT | GTGAGGGTGG | AGCTGCTGTT | CCAGCTGGGG | GAGGCTTGGG | AAGAGCTGCA | 3360 |
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| | CACCATCATC | ATCAGGGACC | CAGATGAAGT | GGACCGGAGC | TTCCAGAGTC | AGATGTTGTC | 3540 |
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| | TGGGTCCAGG | AAGATCGATT | TCAACTGGCT | GCCCCCTTCT | GGCAAGCCAA | TGGGGTACAG | 3660 |
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| 40 | GCCCTCAGTG | GAGCTCAGCA | ACCTGTACCC | GTATTGCGAC | TATGAGATGA | AGGTGTGGCG | 3780 |
| | CTACGGGGCT | CAGGCGGAGG | BACCTTACAG | CTCCCTGGTG | TCCGCGCGCA | CCCACAGGGA | 3840 |
| | AGTGCCCGAG | GAGCCAGGGC | GTCTGGCCTT | CAATGTGCTC | TCCCTCCAGG | TGACCCAGCT | 3900 |
| | GAGCTGGGCT | GATGAGGGTG | AGACCAACCG | TGAGATTCAC | GCCTACGAGG | TCTGCTATGG | 3960 |
| | CCTGGTCAAC | GATGACAAAC | GAOCTATTGG | GCCCATGAAG | AAAGTGTCTG | TTGACAACCC | 4020 |
| 45 | TAAAGACCGG | ATGCTGCTTA | TTGAGAACCT | TCGGGAGTCC | CAGCCCTACC | GCTACACGGT | 4080 |
| | GAAAGGCGCG | AACGGGGCCG | GCTGGGGGCC | TGAGCGGGAG | GCCATCATCA | ACCTGGCCAC | 4140 |
| | CCAGCCCAAG | AGGCCCATGT | CCATCCCAT | CATCCCTGAC | ATCCCTATCG | TGGAGGCCCA | 4200 |
| | GAGCGGGAG | GACTAAGACA | GCTTCCCTAT | GTACAGCGAT | GACGTTCTAC | GCTCTCCATC | 4260 |
| | GGGACGCCAG | AGGCCCAAGG | TCTCCGATGA | CACCTGGCTG | GGCTGGAAAT | TGAGCCCTCT | 4320 |
| 50 | GCTGGGGGAG | GAGCTGGACC | TGGGCGCGCT | CAGTGGCGGG | CTGCGCCCGG | AGCTCATCCC | 4380 |
| | GCGCCTGTGG | GCCAGCAGCG | GGCCTCTCTC | CGAGCGCGAG | GCCGCCACCG | CCGCCCGGAC | 4440 |
| | GAGCGCGCGG | CGGCGGGGAA | GGGCGGCGAG | CGTGGCCCGG | AGTGGGACAC | CGGGGCCCCC | 4500 |
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| | GCAAGAGATG | ACCAAGACCA | GTGCTGCTGC | CTATGGCACC | CACCTGAGCC | CACACGTGCC | 4620 |
| 55 | CCACCGCGTG | CTAGACACAT | CCTCCACCTT | CACAGGGGAC | TACAACTCAC | TGACCCGCTC | 4680 |
| | AGAAACTCTA | CACCTGACCA | CACCTGCCAG | GGACTACTCC | ACCCCTACCT | CGCTCTCTCT | 4740 |
| | CCACGACTCT | CGCCTGACTG | CTGGTGTGCC | CGACAGCGCC | ACCGCGCTGG | TGTTCTCTGC | 4800 |
| | CCTGGGGCCC | ACATCTCTCA | GAGTGAAGCTG | GCAGGAGCCG | CGGTGCGAGC | GGCGCGTGCA | 4860 |
| | GGGCTACAGT | GTGGAGTACC | AGCTGCTGAA | CGGGGGTGAG | CTGCATGGGC | TCAACATCCC | 4920 |
| 60 | CAACCTCGCT | CAGACCTCGG | TGGTGGTGGG | AGACCTCCTG | CCCAACCACT | CTTACGTGTT | 4980 |
| | CGGCTGCGCG | GCCAGAGGCC | AGGAAGGCTG | GGGCGGAGAG | CGTGAGGGTG | TGATCACCAT | 5040 |
| | TGAATCCAG | GTGCAACCGC | AGAGCCCACT | GTGTCCCTCG | CCAGGCTCCG | CCCTCACTTT | 5100 |
| | GAGCACTCCC | AGTGCCTCAG | GCCCGCTGGT | GTTCACCTGC | CTGAGCCGAG | ACTCGCTGCA | 5160 |
| | GCTGAGCTGG | GAGCGGCCAC | GGAGGCCCAA | TGGGGATATC | GTGGGCTACC | TGGTGAOCTG | 5220 |
| 65 | TGAGATGGCC | CAAGGAGGAG | GGCCAGCCAC | CGCATTCGGG | GTGGATGGAG | ACAGCCCGGA | 5280 |
| | GAGCCGGCTG | ACCGTGCOCG | GCCTCAGCGA | GAACGTGCCG | TACAGTTTCA | AGGTGCAGGC | 5340 |
| | CAGGACCATT | GAGGGCTTGG | GGCCAGAGCG | CGAGGGCATC | ATCACCATAG | AGTCCAGGGA | 5400 |
| | TGGAGGACCT | TTCCCGCAGC | TGGGCAGCGG | TGCGGGGCTC | TTCCAGCACG | CGCTGCAAGG | 5460 |
| | CGAGTACAGC | AGCATCAACA | CCAACCCAC | CAGCGCCACC | GAGCCCTTCC | TAGTGGATGG | 5520 |
| 70 | GCTGACCTTG | GGGGCCAGC | ACCTGGAGGC | AGGCGGCTCC | CTCACCCGCG | ATGTGACCCA | 5580 |
| | GGAGTTTGTG | AGCCGGACAC | TGACCAACAG | CGGAACCTTT | AGCACCTTCA | TGGAACCAACA | 5640 |
| | GTCTTCTCAA | ACTTGACCGC | ACCCCTGCCG | ACCCCGGCCA | TGTCCOACTA | GGGTCTCTCC | 5700 |
| | CGACTCTCTT | CCCGGAGCCT | CCTCAGCTAC | TCCATCCTTG | CACCCCTGGG | GGCCGAGGCC | 5760 |
| | ACCCGATGCG | ACAGAGCAGG | GGCTAGGTTG | CTCCTGGGAG | GCATGAAGGG | GGCAAGGTCC | 5820 |
| 75 | GTCTCTGTGT | GGGCCAAACC | TATTTGTAAC | CAAGAGCTGG | GGAGCAGCAC | AAGGACCCAG | 5880 |
| | CCCTGTGTTT | GCATTTAATA | AATGGTTTTG | CTACTGCTAA | AAAAAAAAAA | AAAAAAAAAA | 5940 |
| | AAAAAAAAAA | AAAAAAAAAA | AAAAAAAAAA | AAAAAAAAAA | AAAA | | 5994 |

Seq ID NO: C92 DNA Sequence
Nucleic Acid Accession #: NM_023915
Coding sequence: 250..1326

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 CCCACGCTC AATCGTCCC AAGTGTTTCC TGACACGCAT CTTTGCTTAC AGTGCAATC 240
 AACTGAAGAA TGGGGTTCAA CTTGACGCTT GCAAAATTAC CAAATAACGA GCTGCACGGC 300
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 ATTACACTT TCTGTCTGC GTGTAATGTT TGCCTGGATC CAATAATTTA CTTTTTCATG 1200
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25 Seq ID NO: C93 DNA Sequence
 Nucleic Acid Accession #: NM_020789.1
 Coding sequence: 208..3699

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 GGGCTGGGTG AGCAGGCCAG CTGGGCTATG GTGTGCTGCC TCGGCTCGGC CGTCTCAGC 240
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 GAGCCTGTGA CCGTGGCTTG TGTGGCCCTG GGCAGCCCC TGCCTCATGT GACGTGGAG 720
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 CGGATCCGCC GGTAGAGCG AGGCAGCTCT GGGGTCTACA CCTGCCAGC CTCGAGCACT 840
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 CCCCCCAGA ACAGCAGAGT CAATGCTCTC CAGGATGTTT CATTTGGCT CATGCTGAG 960
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Seq ID NO: C94 DNA Sequence
 Nucleic Acid Accession #: NM_006875
 Coding sequence: 186..1190

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 Coding sequence: 92..1774

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 CAATGAAGA CACTTCTGCT ACATGAGGGA GCACAAATCAA TTAATGGCT GGTCTTCTGA 240
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 GACTGTCTAC AGAAGACATG GACGGGCATA TGTTCCTATC GCACAAGTGA AAGATGTGTA 780
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 CAGACCTTCA AAACCCACCC CTCTTTAGG AACTGCTGGT GACAACCCCC TGGAGCTGAG 1140
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 AATTGTAGAG GGAATCTTAG AGGTTAACAT CATCCAGATG ACAGACGTCC TGATGCGGT 1260

| | | | | | | | |
|----|-------------|-------------|-------------|------------|------------|-------------|------|
| | GCCATGGCCCT | GAAAGCTCCC | TAATAGACTT | TGTCGTGACC | TGCCAAGGGA | GCATTCCCAC | 1320 |
| | GGAGGTCCTG | ACCATCAATT | CTGACCCAC | CTGCGAGATC | ACCCAGAACA | CAGTCTGCAG | 1380 |
| | CCCTGTGGAT | GTGGATGAGA | TGTCGTCTCT | GACTGTGAGA | CGAACCTTCA | ATGGGTCTGG | 1440 |
| 5 | GAGTACCTGT | GTGAACCTCA | CCCTGGGGGA | TGACACAAGC | CTGGCTCTCA | CGAGCACCCCT | 1500 |
| | GATTTCTGTT | CTGACAGAG | ACCCAGCCTC | GCCTTTAAGG | ATGGCAAACA | GTGCCCTGAT | 1560 |
| | CTCCGTTGGC | TGCTTGGCCA | TATTTGTTCAC | TGTGATCTCC | CTCTTGGTGT | ACAAAAAACA | 1620 |
| | CAAGGAATAC | AACCCAAATAG | AAAAATAGTCC | TGGGAATGTG | GTGAGAAGCA | AAGGCCCTGAG | 1680 |
| | TGCTTTCTTC | AACCGTGCAA | AAGCCGTGTT | CTTCCCGGGA | AACCAGGAAA | AGGATCCGCT | 1740 |
| 10 | ACTCAAAAC | CAAGAATTTA | AAGGAGTTTC | TTAAATTTCC | ACCTTGTTC | TGAAGCTCAC | 1800 |
| | TTTTCACTGC | CATTGATGTG | AGATGTGCTG | GAGTGGCTAT | TAACCTTTTT | TTCCTAAAGA | 1860 |
| | TTATTGTATA | ATAGATATGT | TGGTTTGGGG | AAGTTGAATT | TTTTATAGGT | TAAATGTCTAT | 1920 |
| | TTTAGAGATG | GGGAGAGGGA | TTATACTGCA | GGCAGCTTCA | GCCATGTTGT | GAACTGATA | 1980 |
| | AAAGCAACTT | AGCAAGGCTT | CTTTTCATTA | TTTTTTATGT | TTCACTTATA | AAGCTTPAGG | 2040 |
| 15 | TAACTAGTAG | GATAGAAACA | CTGTGTCCTG | AGAGTAAGGA | GAGAAGCTAC | TATTGATTAG | 2100 |
| | AGCCTAACCC | AGGTTAACTG | CAAGAAGAGG | CGGGATACCT | TCAGCTTTCC | ATGTAACCTGT | 2160 |
| | ATGCATAAAG | CCAATGTAGT | CCAGTTTCTA | AGATCATGTT | CCAAGCTAAC | TGAATCCAC | 2220 |
| | TTCAATAAC | ACCTATGAAC | TCCTGATGGA | ACAATAACAG | GCCCAAGCCT | GTGGTATGAT | 2280 |
| | GTGCACACTT | GCTAGACCTA | GAAAAAATAC | TACTCTCATA | AATGGGTGGG | AGTATTTTGG | 2340 |
| 20 | TGACAACCTA | CTTTGCTTGG | CTGAGTGAAG | GAATGATATT | CATATATTCA | TTTATTCAT | 2400 |
| | GGACATTTAG | TTAGTGCITT | TTATATACCA | GGCATGATGC | TGAGTGACAC | TCTTGTGTAT | 2460 |
| | ATTTCCAAAT | TTTGTATATG | TCGCTGCACA | TATTTGAAAT | CATATATTAA | GACTTTCCAA | 2520 |
| | AGATGAGGTG | CTGTGTTTTT | CATGGCAACT | TGATCAGTAA | GGATTTCCAC | TCTGTTTGT | 2580 |
| | ACTAAACCA | TCTACTATAT | GTTAGACATG | ACATTCITTT | TCTCTCCTTC | CTGAAAAATA | 2640 |
| 25 | AAGTGTGGGA | AGAGACAAA | AAAAAAA | | | | 2669 |

Seq ID NO: C96 DNA Sequence

Nucleic Acid Accession #: Eos sequence

Coding sequence: 1..4247

| | | | | | | | |
|----|------------|-------------|-------------|-------------|-------------|-------------|------|
| 30 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | ATGCGAATCC | TAAAGCGTTT | CTCGCTTGC | ATTCAGCTCC | TCTGTGTTTG | CCGCCCTGGAT | 60 |
| | TGGGCTAATG | GATACTACAG | ACAACAGAGA | AAACTTGTGG | AAGAGATTGG | CTGGTCTCTAT | 120 |
| | ACAGGAGCAC | TGAATCAAAA | AAATTGGGGA | AAGAAATATC | CAACATGTAA | TAGCCCAAAA | 180 |
| 35 | CAATCTCCTA | TCAATATTGA | TGAAGATCTT | ACACAAGTAA | ATGTGAATCT | TAAGAAACTT | 240 |
| | AAATTTCCAG | GTTGGGATAA | AACATCATTT | GAAAAACAT | TCATTTCATA | CACITGGGAAA | 300 |
| | ACAGTGGAAA | TAATCTCTAC | TAATGACTAC | CTGTCTCAGC | GAGGAGTTTC | AGAAATGGTG | 360 |
| | TTTAAAGCAA | GCAAGATAAC | TTTTCACTGG | GGAAATGCA | ATATGTCTAT | TGATGGATCA | 420 |
| | GAGCATAGTC | TAGAAGGACA | AAAATTTCCA | CTTGAGATGC | AAATCTACTG | CTTTGATGCA | 480 |
| 40 | GACCGATTTT | CAAGTTTIGA | GGAGCAGTC | AAAGGAAAAG | GGAGTTAAG | AGCITTATCC | 540 |
| | ATTTTGTGTT | AGGTTGGGAC | AGAAGAAAAT | TTGGATTCCA | ARGCGATTAT | TGATGGAGTC | 600 |
| | GAAAGTGTTA | TGCTTTTGGG | GAAGCAGGCT | GCCTTAGATC | CATTTCATAT | GTTGAACCTT | 660 |
| | CTGCCAAACT | CACCTGACAA | GTATTACATT | TACAATGGCT | CATTGACATC | TCCTCCCTGC | 720 |
| | ACAGACACAG | TTGACTGGAT | TGTTTTTAAA | GATACAGTTA | GCATCTCTGA | AAGCCAGTTG | 780 |
| 45 | GCTGTTTTTT | GTGAAGTTCT | TACAATGCAA | CAATCTGGTT | ATGTCTATGT | GATGGACTAC | 840 |
| | TTACAAACAA | ATTTTCGAGA | GCAACAGTAC | AAGTTCTCTA | GACAGGTGTT | TTCTCTCAT | 900 |
| | ATCGGAAGAG | AGAGAGTTCA | TGAAGCAGTT | TGTAGTTTCA | AACCGAAGAA | TGTTCAAGCT | 960 |
| | GACCCAGAGA | ATATATCCAG | CCCTCTGTGT | ACATGGGAAA | GACCTCGAGT | CGTTTATGAT | 1020 |
| 50 | ACCATGATTG | AGAGGTTTGC | AGTTTGTATC | CAGCAGTTGG | ATGGAGAGGA | CCAAACCAAG | 1080 |
| | CATGAATTTT | TGACAGATGG | CTATCAAGAC | TTGGGTGCTA | TTCTCAATAA | TTTGCTACCC | 1140 |
| | AATATGAGTT | AGTTTCTTCA | GATAGTAGCC | ATATGCACTA | ATGGCTTATA | TGGAAAATAC | 1200 |
| | AGCGACCAAC | TGATTTCTGA | CATGCCCTAC | GATAATCTCT | AACCTTGATCT | TTTCCCTGAA | 1260 |
| | TTAATTTGGA | CTGAGGAAT | AATCAAGGAG | GAGGAGAGGG | GAAAAGACAT | TGAAGAAGGC | 1320 |
| 55 | GCTATTGTGA | TGCTCTGTAG | AGACAGTGTCT | ACAAACCAAA | TCAGGAAAAA | GGAAACCCAG | 1380 |
| | ATTTCTACCA | CAACACACTA | CAATGTCATA | GGGACGAAAT | ACAATGAAGC | CAAGACTAAC | 1440 |
| | CGATCCCAAA | CAAGAGGAAG | TGAATTTCTC | GGAAAGGGTG | ATGTTCCCAA | TACATCTTTA | 1500 |
| | AAATCCACTT | CCCAACCCAGT | CACATAAATA | GCCACAGAAA | AAGATATTTT | CTTGACTTCT | 1560 |
| | CAGACTGTGA | CTGACTGTCC | ACCTCACACT | GTGGAAGGTA | CTTCAGCCTC | TTTAAATGAT | 1620 |
| | GGCTCTAAAA | CTGTTCTTAG | ATCTCCACAT | ATGAACCTGT | CGGGACTGCG | AGATTCCTTA | 1680 |
| 60 | AATACAGTTT | CTATACAGTA | ATATGAGGAG | GAGAGTTTAT | TGACCAATTT | CAAGCTTGAT | 1740 |
| | ACTGGAGCTG | AAGATTCTTC | AGGCTCCAGT | CCCGCAACTT | CTGCTATCCC | ATTCTCTCT | 1800 |
| | GAGAACATAT | CCCAAGGGTA | TATATTTTCC | TCCGAAAACC | CAGAGACAAT | AACATATGAT | 1860 |
| | GTCCTTATAC | CAGAACTGTC | TAGAAATGCT | TCCGAAGATT | CAACTTCATC | AGGTTTCAGAA | 1920 |
| 65 | GAATCACTAA | AGGATCTCTC | TATGGAGGGA | AATGTGTGGT | TTCTAGCTTC | TACAGACATA | 1980 |
| | ACAGCACAGC | CCGATGTTGG | ATCAGGCAGA | GAGAGCTTTT | TCCAGACTAA | TTACTCTGAG | 2040 |
| | ATACGTGTTG | ATGAATCTGA | GAAGACAACC | AAGTCCTTTT | CTGCAGGCC | AGTGTATGTA | 2100 |
| | CAGGTCCTCT | CAGTTTACAGA | TCTGGAAATG | CCACATTAAT | CTACCTTTGC | CTACTTCCCA | 2160 |
| | ACTGAGGTAA | CACCTCATGC | TTTACCCCA | TCCTCCAGAC | AACAGGATTT | GGTCTCCACG | 2220 |
| | GTCACGTTGG | TATACTGCGA | GACAAACCAA | CCGGTATACA | ATGAGGCCAG | TAATAGTAGC | 2280 |
| 70 | CATGAGTCTC | GTATTGGTCT | AGCTGAGGGG | TTGGAATCCG | AGAAGAAGGC | AGTTATACCC | 2340 |
| | CTTGTGATCG | TGTCAGCCCT | GACTTTTATC | TGTCATGTTG | TTCTTGTGGG | TATTTCTATC | 2400 |
| | TACTGGAGGA | AATGCTTCCA | GACTGCACAC | TTTTACTTAG | AGGACAGTAC | ATCCCTAGAA | 2460 |
| | GTTATATCCA | CACCTCCAAC | ACCTATCTTT | CCAATTTTCA | ATGATGTCCG | AGCAATTCCA | 2520 |
| 75 | ATAAAGCACT | TTCCAGAGCA | TGTTGCAGAT | TTACATGCAA | GTAGTGGGTT | TACTGAAGAA | 2580 |
| | TTTGAGGAAG | TGCAGAGCTG | TACTGTTGAC | TTAGGTATTA | CAGCAGACAG | CTCCAAACCAC | 2640 |
| | CCAGACAACA | AGCACAAGAA | TGATACATA | AATATGTTTG | CCTATGATCA | TAGCGGGGTT | 2700 |
| | AAGCTAGCAC | AGCTTGTCTGA | AAAGGATGTC | AAACTGACTG | ATTATATCCA | TGCCAATTAT | 2760 |
| | GTTGATGCTC | ACACAGAGCC | AAAAGCTTAT | ATTGCTGCCC | AAGGCCCACT | GAAATCCACA | 2820 |
| 80 | GCTGAAGATT | TCTGGAGAAAT | GATATGGGAA | CATAATGTGG | AAGTTATTGT | CATGATAACA | 2880 |
| | AACCTGCTGG | AGAAAGGAAG | GAGAAATGT | GATCAGTACT | GGCTTGCCGA | TGGGAGTGAG | 2940 |
| | GAGTACGGGA | ACTTTCTGGT | CACCTCAGAA | AGTGTGCAAG | TGCTTGCCTA | TTATACTGTG | 3000 |
| | AGGAATTTTA | CTCTAAGAAA | CACAAAAATA | AAAAAGGCTC | CCCAAGAAAG | AAGACCCAGT | 3060 |
| | GGAGTGTGGG | TCACACAGTA | TCACTACACG | CAGTGGCCCTG | ACATGGGAGT | ACCAAGATAC | 3120 |
| | TCCCTGCCAG | TGCTGACCTT | TGTGAGAAAG | GCAGCCTATG | CCAAGCCCA | TGCAGTGGGG | 3180 |

| | | | | | | | |
|----|------------|-------------|-------------|------------|------------|-------------|------|
| 5 | CCTGTTGTCG | TCCACTGCAG | TGCTGGAGTT | GGAAGAACAG | GCACATATAT | TGTGCTAGAC | 3240 |
| | AGTATGTTGC | AGCAGATTCA | ACAOGAAGGA | ACTGTCAACA | TATTGGCCTT | CTTAAAAAC | 3300 |
| | ATCCGTTTAC | AAAGCAATTA | TTTGGTACAA | ACTGAGGAGC | AATATGTCCT | CATTCAATGAT | 3360 |
| | ACACTGGTTG | AGGCCATACT | TAGTAAGAA | ACTGAGGTGC | TGGACAGTCA | TATTCAATGCC | 3420 |
| | TATGTTAATG | CACCTCTCAT | TCCTGGACCA | GCAGGCAAAA | CAAAGCTAGA | GAACCAATTC | 3480 |
| | CAGCTCCTGA | GCCAGTCAAA | TATACAGCAG | AGTGACTATT | CTGCAGCCCT | AAAGCAATGC | 3540 |
| | AACAGGGAAA | AGAATCGAAC | TTCTTCTATC | ATCCCTGTGG | AAAGATCAAG | GGTTGGCATT | 3600 |
| | TCATCCCTGA | GTGGAGAGGG | CACAGACTAC | ATCAATGCCT | CCTATATCAT | GGGCTATTAC | 3660 |
| | CAGAGCAATG | AATTCAATCAT | TAOCCAGCAC | CCTCTCCCTC | ATACCATCAA | GGATTTCTGG | 3720 |
| 10 | AGGATGATAT | GGGACCATAA | TGOCCTAAGT | GTGGTTATGA | TTCTTGATGG | CCAAAACATG | 3780 |
| | GCAGAGATG | AATTGTGTTA | CTGGCCAAAT | AAAGATGAGC | CTATAAATTG | TGAGAGCTTT | 3840 |
| | AAGGTCACTC | TTATGGCTGA | AGAACACAAA | TGTCTATCTA | ATGAGGAAAA | ACTTATAAAT | 3900 |
| | CAGGACTTTA | TCTTAGAAGC | TACACAGGAT | GATTATGTAC | TTGAAGTGAG | GCACCTTCAG | 3960 |
| | TGTCTAAAT | GGCCAAATCC | AGATAGCCCC | ATTAGTAAAA | CTTTTGAAC | TATAAGTGTT | 4020 |
| 15 | ATAAAGAAG | AAGCTGCCAA | TAGGGATGGG | CCTATGATTG | TTCTATGATG | GCATGGAGGA | 4080 |
| | GTGACGGCAG | GAACCTTTCTG | TGCTCTGACA | ACCCTTATGC | ACCAACTAGA | AAAGAAAAAT | 4140 |
| | TCGCTGGATG | TTTACCAAGT | AGCCAAAGATG | ATCAATCTGA | TGAGGCCAGG | AGTCTTTGCT | 4200 |
| | GAATGTAGC | AGTATCAGTT | TCTCTACAAA | GTGATCCTCA | GCCTTGTGAG | CACAAAGGCAG | 4260 |
| 20 | GAAGAGAATC | CATCACCTTC | TCTGGACAGT | AATGCTGCAG | CATTGCTTGA | TGGAATATA | 4320 |
| | GCTGAGAGCT | TAGAGTCTTT | AGTTTAA | | | | 4347 |

Seq ID NO: C97 DNA Sequence
Nucleic Acid Accession #: XM_031379
Coding sequence: 148..7095

| | | | | | | | |
|----|-------------|-------------|-------------|------------|-------------|-------------|------|
| 25 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | CACACATAAG | CACGCAAGAT | CTCAGTTCGA | TCTATACACT | GGAGGATTAA | AACAAACAAA | 60 |
| | CAAAAAAACC | ATTTCCCTTCG | CTCCCCCTCC | CTCTCCACTC | TGAGAAGCAG | AGGAGCCGCA | 120 |
| 30 | CGGCGAGGGG | CCGCGAGCCG | TCCTGAAAATG | CGAATCCTAA | AGCGTTTCCT | CGCTTGCATT | 180 |
| | CAGCTCCTCT | GTGTTTGCCG | CCTGGATTGG | GCTAATGGAT | ACTACAGACA | ACAGAGAAAA | 240 |
| | CTGTGTTAAG | AGATTGGCTG | GTCTTATACA | GGAGCACTGA | ATCAAAAAAA | TTGGGGAAAG | 300 |
| | AAATATCCAA | CATGTAATAG | CCCAAAAACA | TCTOCTATCA | ATATTGATGA | AGATCTTACA | 360 |
| | CAAGTAAATG | TGAATCTTAA | GAAACTTAAA | TTTCAGGGTT | GGGATAAAAC | ATCATGGA | 420 |
| 35 | AACACATTCA | TTTATAACAC | TGGGAAAACA | GTGGAATTA | ATCTCACTAA | TGACTACCGT | 480 |
| | GTGAGCGAG | GAGTTTCAGA | AATGGTGT | AAAGCAAGCA | AGATAACTTT | TCACTGGGGA | 540 |
| | AAATGCAATG | TGTCACTCTG | TGGATCAGAG | CATAGTTTAG | AAGGACAAAA | ATTTCCACTT | 600 |
| | GAGATGCAAA | TCTACTGCTT | TGATGCGGAC | CGATTTTCAA | GTTTTGAGGA | AGCAGTCAAA | 660 |
| | GGAAAAGGGA | AGTTAAGAGC | TTTATCCATT | TTGTTTGAGG | TGGGACAGA | AGAAAATTG | 720 |
| 40 | GATTTCAAAG | CGATTATTGA | TGGAGTCGAA | AGTGTAGTCT | GTTTTGGGAA | GCAGGCTGCT | 780 |
| | TTAGATCCAT | TCATACTGTT | GAACCTTCTG | CCAAACTCAA | CTGACAAGTA | TTACATTTAC | 840 |
| | AATGGCTCAT | TGACATCTCC | TCCCCTGCACA | GACACAGTTG | ACTGGATTGT | TTTTAAAGAT | 900 |
| | ACAGTTAGCA | TCTCTGAAG | CCAGTTGGCT | GTTTTGTG | AGTCTCTTAC | AATGCAACAA | 960 |
| 45 | TCGTTGTTAG | TGATGCTCAT | GGACTACTTA | CAAAACAATT | TTGAGAGACA | ACAGTACAG | 1020 |
| | TTCTCTAGAC | AGGTGTTTTT | CTCATACACT | GGAAAGGAAG | AGATTCTATGA | AGCAGTTTGT | 1080 |
| | AGTTCAAGAC | CAGAAAATGT | TCAGGCTGAC | CCAGAGAATT | ATACCAGCCT | TCTTGTATCA | 1140 |
| | TGGGAAGAGC | CTCAGTCTGT | TTATGATACC | ATGATTGAGA | AGTTTGCAAT | TTTGTACCAG | 1200 |
| | CAGTTGGATG | GAGAGGAACA | AAACCAAGCAT | GAATTTTGA | CAGATGGCTA | TCAAGACTTG | 1260 |
| 50 | GGTGTATTTC | TCAATATTAT | GCTACCCAAT | ATGAGTTATG | TTCTTCAGAT | AGTAGCCATA | 1320 |
| | TGCACTAATG | GCTTATATGG | AAAATACAGC | GACCAACTGA | TGTGACACAT | GCCTACTGAT | 1380 |
| | AATCTGAAC | TTGATCTTTT | CCCTGAATTA | ATTGGAAGTG | AGAAATAAT | CAAGGAGGAG | 1440 |
| | GAAGAGGAAA | AAGACATCTA | AGAAGGCGCT | ATTGTGAATC | CTGGTAGAGA | CAGTGTACAA | 1500 |
| | AACCAAAATCA | GGAAAAGAGA | ACCCAGATTT | TCTACCAACA | CACACTACAA | TCGCATAGGG | 1560 |
| 55 | ACGAAATATG | ATGAAGCCAA | GACTAACCCA | TCCCAACACA | GAGGAAGTGA | ATTCTCTGGA | 1620 |
| | AAGGTTGATG | TTCCCAATAC | ATCTTTAAAT | TCCACTTCCC | AACCAAGTCA | TAAATTAGCC | 1680 |
| | ACAGAAAAG | ATATTTCCTT | GACTTCTCAG | ACTGTGACTG | AACTGCCACC | TCACACTGTG | 1740 |
| | GAGGTACTCT | CAGCCTCTTT | AAATGATGGC | TCTAAAACTG | TTCTTAGATC | TCCACATATG | 1800 |
| | AACTTGTGCG | GGACTGCAGA | ATCCCTAAAT | ACAGTTTCTA | TAAACAGATA | TGAGGAGGAG | 1860 |
| | AGTTTATTGA | CCAGTTTCAA | GCTTGATACT | GGAGCTGAAG | ATTCTTCAGG | CTCCAGTCCC | 1920 |
| 60 | GCAACTTCTG | CTATCCCAAT | CATCTCTGAG | AACATATCCC | AAGGATATAT | ATTTTCTCTC | 1980 |
| | GAAGAACCCAG | AGACATAAAC | ATATGATGTC | CTTATACAGG | AATCTGCTAG | AAATGCTTCC | 2040 |
| | GAAGATTCAA | CTTCAATCAGG | TTGAGAAGAA | TCCTAAAGG | ATCCCTCTAT | GGAGGGAAT | 2100 |
| | GTGTGGTTTC | CTAGCTCTAC | AGACATAACA | GCACAGCCCG | ATGTTGGATC | AGGCAGAGAG | 2160 |
| | AGCTTTCTCC | AGACTAATTA | CACTGAGATA | CGTGTGATG | AATCTGAGAA | GACAAACCAAG | 2220 |
| 65 | TCCTTTTCTG | CAGGCCCACT | GATGTCACAG | GGTCCCTCAG | TTACAGATCT | GGAAATGCCA | 2280 |
| | CATTATTCTA | CCTTTGCCCTA | CTTCCCAACT | GGGTATACAC | CTCATGCTTT | TACCCCATCC | 2340 |
| | TCCAGACAAC | AGGATTGGT | CTCCACGGTC | AACGTGGTAT | ACTGCGAGAC | AACCCAAACG | 2400 |
| | GTATACATAG | GTGAGACACC | TCTTCAACCT | TCCTACAGTA | GTGAGTCTT | TCTCTAGTCT | 2460 |
| 70 | ACCCCTTTGT | TGCTTGACAA | TCAGATCCTC | AACACTACCT | CTGCTGCTTC | AAGTAGTATG | 2520 |
| | TGCGCCTTGC | ATGCTACGCC | TGTATTTCCT | AGTGTGATG | TGTCAATTTGA | ATCCATCTCT | 2580 |
| | TCTTCTATG | ATGGTGCACC | TTTGTCTCCA | TTTTCCTCTG | CTTCTCTCAG | TAGTGAATTTG | 2640 |
| | TTTGGCCTAT | TGCTTACAGT | TTCTCAAAATC | CTTCCACAA | TTACTTCAAG | TACCGAGAGT | 2700 |
| | GATTAAGTGC | CCTTGCATGC | TTCTCTGCCA | GTGGCTGGGG | GTGATTGTCT | ATTAGAGCCC | 2760 |
| | AGCCTTGCTC | CGTTATTTCTG | TGTGCTGTCC | ACTACTCATG | CTGCTTCAGA | GACGCTGAAA | 2820 |
| 75 | TTTGTAGTGT | AATCTGGTGT | TCTTTATAAA | ACGCTTATGT | TTTCTCAAGT | TGAACCAACC | 2880 |
| | AGCAGTGTAT | CCATGATGCA | TGCAAGTTCT | TCAGGGCCTG | AACTTCTTTA | TGCTTGTCT | 2940 |
| | GATTAATGAG | GCTCCCAACA | CATCTTCACT | GTTCCTTACA | GTTCGCAAT | ACCTGTGCAT | 3000 |
| | GATTCCTGCG | GTGTAACCTA | TCAGGGTTCC | TTATTTAGCG | GCCTTAGCCA | TATACCAATA | 3060 |
| 80 | CCTAAGTCTT | CGTTAATAAC | CCCAACTGCA | TCATTACTGC | AGCCTACTCA | TGCCCTCTCT | 3120 |
| | GGTATGCGG | AATGGTCTGG | AGCCTCTTCT | GATAGTGAAT | TTCTTTTACC | TGACACAGAT | 3180 |
| | GGGCTGACAG | CCCTTAACAT | TTCTTCACTT | GTTCCTGTAG | CTGAATTTAC | ATATACAACA | 3240 |
| | TCTGTGTTTG | GTGATGATGA | TAAGGCGCTT | TCTAAAAGTG | AAATAATATA | TGGAATATGA | 3300 |
| | ACTGAACCTGC | AAATCTCTTC | TTCTAATGAG | ATGGTTTAAC | CTTCTGAAAG | CACAGTCAATG | 3360 |
| | CCCAACATGT | ATGATAATGT | AAATAGTTG | AATGCGTCTT | TACAAGAAAC | CTCTGTTTCC | 3420 |

| | | | | | | | |
|----|-------------|-------------|-------------|-------------|-------------|-------------|------|
| | ATTTCTAGCA | CCAAGGSCAT | GTTCACAGGG | TCCCTTGCTC | ATACCACCAC | TAAGGTTTTT | 3480 |
| | GATCATGAGA | TTAGTCAAGT | TCCAGAAAAT | AACITTTTCA | TTCAACCTAC | ACATACTGTC | 3540 |
| | TCTCAAGCAT | CTGGTGACAC | TTGGCTTAAA | CCTGTGCTTA | GTGCAAACTC | AGAGCCAGCA | 3600 |
| 5 | TCCCTCTACC | CTGCTTCTAG | TGAAATGTTA | TCTCCTTCAA | CTCAGCTCTT | ATTTTATGAG | 3660 |
| | ACCTCAGCTT | CTTTTAGTAC | TGAAGTATTG | CTACACCTT | CCTTTCAGGC | TTCTGATGTT | 3720 |
| | GACACCTTGC | TTAAACTGT | TCTTCCAGCT | GTGCCAGTG | ATCCAAATAT | GGTTGAAACC | 3780 |
| | CCCAAGTTG | ATAAAATTAG | TTTCACAATG | TTGCATCTCA | TTGTATCAAA | TTCTGCTTCA | 3840 |
| | AGTGAARAAC | TGCTGCACTC | TACATCTGTA | CCAGTTTTFG | ATGTGTGCCC | TACTTCTCAT | 3900 |
| 10 | ATGCACCTCG | CTTCACTTCA | AGGTTTGACC | ATTTCTCTATG | CNAGTGAGAA | ATATGAACCA | 3960 |
| | GTTTTGTFAA | AAAGTGAAAG | TTCCCACCAA | GTGGTACCTT | CTTTGTACAG | TAATGATGAG | 4020 |
| | TTGTTCCTAAA | CGGCCAATTT | GGAGATTAA | CAGGCCCATC | CCCCAAAAGG | AAGGCATGTA | 4080 |
| | TTTGCTACAC | CTGTTTATATC | AATTGATGAA | CCATTAATAA | CACATAAATA | TAAGCTTATA | 4140 |
| | CATTCCGATG | AAATTTTAA | CTCCACCAA | AGTTCGTITA | CTGGTAAGGT | ATTTGCTGTT | 4200 |
| 15 | ATTCCAACAG | TGCTTCTCGA | TACATTTGTA | TCTACTGATC | ATTCGTGTCC | TATAGGAAT | 4260 |
| | GGGCTGTGTT | CCATTACAGC | TGTTTCTCCC | CACAGAGATG | GTTCGTAAAC | CTCAACAAAG | 4320 |
| | TTGCTGTTTC | CTTCTAAGGC | AACCTCTGAG | CTGAGTCATA | GTGCCAAATC | TGATGCCGCT | 4380 |
| | TTAGTGGTGC | ATGGTGAAAG | TGGTGACACT | GATGATGATG | TGATGATGTA | TGATGATGAC | 4440 |
| | AGAGGTAGTG | ATGGCTTATC | CATTCTAAG | TGTATGTCTAT | GCTCATCTTA | TAGAGAAATC | 4500 |
| 20 | CAGGAAAGGG | TAGTGAATGA | TTCAGACACC | CACGAAAAA | GTCTTATGGA | TCGAATAAT | 4560 |
| | CCAACTTCAT | ACTCACATATC | TGAGAATTCT | GAAGAAGATA | ATAGAGTCAC | AAGTGTATCC | 4620 |
| | TCAGACATGC | AAACTGTGAT | GGACAGAAGT | CCTGTGTAAT | CACCATCAGC | AAATGCGCTA | 4680 |
| | TCCCAAAAGT | ACATATGATG | AAAGAGGAA | AATGACATTC | AGACTGGTAG | TGCTCTGCTT | 4740 |
| | CCTCTCAGCC | CTGAATCTAA | AGCATGGGCA | GTTCGTACAA | GTGATGAAGA | AAGTGGATCA | 4800 |
| 25 | GGGCAAGGTA | CCTCAGATAG | CCTTAATGAG | AATGAGACTT | CCACAGATTT | CAGTTTTCGA | 4860 |
| | GACACTAATG | AAAAAGATGC | TGATGGGATC | CTGGCAGCAG | GTGACTCAGA | AAATACTCCT | 4920 |
| | GGATTCCCAT | AGTCCCAAC | ATCATCTGTT | ACTAGCGAGA | ACTCAGAAAT | GTTCACCGTT | 4980 |
| | TCAGAGGAGT | AGGCAAGTAA | TAGTAGCCAT | GAGTCTCGTA | TTGGTCTAGC | TGAGGGGTG | 5040 |
| | GAATCCGAGA | AGAAAGGAGT | TATACCCCTT | GTGATCGTGT | CAGCCCTGAC | TTTATCTGT | 5100 |
| 30 | CTAGTGGTTC | TTGTGGGTAT | TCTCATCTAC | TGGAGGAAT | GCTTCCAGAC | TGCACACTTT | 5160 |
| | TACTTAGAGG | ACAGTACATC | CCCTAGAGTT | ATATCCACAC | CTCCAACACC | TATCTTTCCA | 5220 |
| | ATTTGAGATG | ATGTCGGAGC | AATTCOAATA | AAGCACTTTC | CAGAGCATGT | TGAGATTTA | 5280 |
| | GATCAAGTGA | GTGGGTTTAC | TGAAGAATTT | GAGACACTGA | AAGAGTTTFA | CCAGGAAGTG | 5340 |
| | CAGAGCTGTA | CTGTGACTT | AGGTATTACA | GCAGACAGCT | CCAACCAACC | AGACAACAAG | 5400 |
| 35 | CACAAGAAAT | GATACATAAA | TATCGTTGCC | TATGATCATA | GCAGGGTTAA | GCTAGCACAG | 5460 |
| | CTTGCTGAAA | AGGATGGCAA | ACTGACTGAT | TATATCAATG | CCAATTATGT | TGATGGCTAC | 5520 |
| | AACAGACCAA | AAGCTTATAT | TGCTGCCCCA | GGCCCACTGA | AATCCACAGC | TGAAGATTTT | 5580 |
| | TGGGAATGA | TATGGGAACA | TAATGTGGAA | GTTATGTGTA | TGATAACAAA | CCTCGTGGAG | 5640 |
| | AAAGGAAGGA | GAATAATGTA | TCACTACTGG | CCTGCCGATG | GGAGTGAGGA | GTACGGGAAC | 5700 |
| 40 | TTCTGCGTCA | CTCAGAAAG | GTGCAAGTG | CTTGCTTATT | ATACTGTGAG | GAATTTTACT | 5760 |
| | CTAAGAALAC | CAAAATATAA | AAAGGGCTCC | CAGAAAGGAA | GACCCAGTGG | ACGTGTGGTC | 5820 |
| | ACACAGTATC | ACTACACGCA | GTGGCTTGAC | ATGGGAGTAC | CAGAGTACTC | CCTGCCAGTG | 5880 |
| | CTGACCTTTG | TGAGAAAGGC | AGCCTATGCC | AAGCCGCAATG | CAGTGGGGTC | TGTTGTGCTC | 5940 |
| | CAGTGCAGTG | CTGGAGTTGG | AAGAACAGGC | ACATATATTG | TGCTAGACAG | TATGTTGCG | 6000 |
| 45 | CAGATTCAAC | ACGAAAGATG | TGTCACACATA | TTTGGCTTCT | TAAACACAT | CCGTTCACAA | 6060 |
| | AGAAATTATT | TGTTACAAAC | TGAGGAGCAA | TATGCTTTCA | TTTATGATAC | ACTGGTTGAG | 6120 |
| | GGCATACTTA | GTAAGAAAC | TGAGGTGCTG | GACAGTCATA | TTTATGCTTA | TGTTAATGCA | 6180 |
| | CTCTCACTTC | CTGACACAGC | AGGCAAAACA | AAGCTAGAGA | AACAAATCCA | GCTCTGAGC | 6240 |
| | CAGTCAAAAT | TACAGCAGAG | TGACTATTCT | GCAGCCCTAA | AGCAATGCAA | CAGGGAAGAG | 6300 |
| 50 | AATCGAATCT | CTCTATCAT | CCCTGTGGAA | AGATCAAGGG | TTGGCATTTT | ATCCCTGAGT | 6360 |
| | GGAGAAGGCA | CAGACTACAT | CAATGCCCTCC | TATATCATGG | GCTATTACCA | GAGCAATGAA | 6420 |
| | TTTATCATTA | CCGAGCACCC | TCTCCTTCAT | ACCATCAAGG | ATTTCTGGAG | GATGATATGG | 6480 |
| | GACCATATAG | CCCAACTGGT | GGTTATGATT | CCTGATGGCC | AAACATAGGC | AGAAGATGAA | 6540 |
| | TTTGTATTACT | GGCCAAATAA | AGATGAGCCT | ATAAATTGTG | AGAGCTTTAA | GGTCACTCTT | 6600 |
| 55 | ATGGCTGAAG | AACACAAATG | TCTATCTAAT | GAGGAAAAAC | TTATAATTCA | GGACTTTATC | 6660 |
| | TTAGAAGCTA | CACAGATGTA | TTATGTACTT | GAAGTGAGGC | ACTTTCAAGT | TCTTAAATGG | 6720 |
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| | GGTGGCAATA | GGGATGGGCC | TATGATTGTT | CATGATGAGC | ATGGAGGAGT | GACGGCAGGA | 6840 |
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| 60 | TACAGGTAG | CCAGTGTGAT | CAATCTGATG | AGGCCAGGAG | TCTTTGCTGA | CATTGAGCAG | 6960 |
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| | GAGTCTTTAG | TTTAAACACAG | AAAGGGGTGG | GGGGACTCAC | ATCTGAGCAT | TGTTTCTCTC | 7140 |
| | TTCCCTAAAT | TAGGCAGGAA | AATCAGTCTA | GTTCGTGTTT | CTGTGATTTT | CCCATCACCT | 7200 |
| 65 | GACAGTAACT | TTATGACAT | AGGATCTGTC | CGCCAAATTT | ATATCATTAA | CAATGTGTGC | 7260 |
| | CTTTTGTCAA | GACTTGTAT | TTACTTATTA | TGTTTGAAGT | AAAATGATTG | AAATTTACAG | 7320 |
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| | TTTATAGAGG | TTAGGAATTC | CAAACTACAG | AAAATGTTTG | TTTTTAGTGT | CAAAATTTTA | 7440 |
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| | GTTAGTTTAA | ATGAGCTAGT | TCAATAGCTG | GTCTTACTCT | ACCAAGTTTTC | TGACATTGTA | 7740 |
| | TTGTTTATCC | TAAGTCATTA | ACTTTGTTTC | AGCATGTAAT | TTTAACTTTT | GTGGAAAAA | 7800 |
| 75 | GAATACCTCT | CATTTTGAAG | GAAGTTTITA | TGAGAAATA | ACCTTACCAA | ACATTGTTCA | 7860 |
| | AATGGTTTTT | ATCCAGGAAA | TTGCAAAAT | AAATATAAAT | ATTGCCATTA | AAAAAATAA | 7920 |
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Seq ID NO: C98 DNA Sequence
Nucleic Acid Accession #: NM_002851
Coding sequence: 77..4518

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| | AACACATTCA | TTCTATAACAC | TGGGAAAAACA | GTGGAAATTA | ATCTCACTAA | TGACTACCGT | 480 |
| | GTACGCGGAG | GAGTTTCAGA | AATGGTGTTC | AAAGCAAGCA | AGATAACTTT | TCACTGGGGA | 540 |
| 10 | AAATGCAATA | TGTCATCTGA | TGGATCAGAG | CATAGTTTAG | AAGGACAAAA | ATTTCCACIT | 600 |
| | GAGATGCAAA | TCTACTGCTT | TGATGCGGAC | CGATTTTCAA | GTITTGAGGA | AGCAGTCAAA | 660 |
| | GGAAAAAGGA | AGTTAAGAGC | TTTATCCATT | TTGTTTGAGG | TTGGGACAGA | AGAAAAATTG | 720 |
| | GATTTCAAAG | CGATTATTGA | TGGAGTCGAA | AGTGTTAGTC | GTITTGGGAA | GCAGGCTGCT | 780 |
| | TTAGATCCAT | TCATCTGTTT | GAACCTTCTG | CCAAACTCAA | CTGACAGTA | TTACATTTAC | 840 |
| 15 | AATGGCTCAT | TGACATCTCC | TCCTGACACA | GACACAGTTG | ACTGGATTGT | TTTTAAAGAT | 900 |
| | ACAGTTAGCA | TCTCTGAAG | CCAGTTGGCT | GTITTTTGTG | AAGTCTTAC | AATGCAACAA | 960 |
| | TCTGGTTATG | TCATGCTGAT | GGACTACTTA | CAAAAACAA | TTGAGAGCCA | ACAGTACAG | 1020 |
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| 20 | TGGGAAAGAC | CTGAGTCTGT | TTATGATACC | ATGATTGAGA | AGTTTGCAGT | TTTGTACCAG | 1200 |
| | CAGTTGGATG | GAGAGGACCA | AAACCAAGCAT | GAATTTTGA | CAGATGGCTA | TCAAGACTTG | 1260 |
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| | GAAGAGGAG | AAGACTTTGA | ABAGGGGCT | ATTGTGAATC | CTGTAGAGA | CAGTGCTACA | 1500 |
| 25 | AACCAATCA | GGAAAAAGGA | ACCCAGATTT | TCTACACAA | CACACTACAA | TGCTATAGG | 1560 |
| | ACGAAATACA | ATGAAGCCAA | GACTAACCGA | TCCCAACAA | GAGGAAGTGA | ATTCTCTGGA | 1620 |
| | AAGGGTAGG | TGCCCAATAC | ATCTTAAAT | TCCACTTCCC | AACCACTGAC | TAAATTAGCC | 1680 |
| | ACAGAAAAG | ATATTTCCCT | GACTTCTCAG | ACTGTGAGTG | AACCTGCCAC | TCACACTGTG | 1740 |
| | GAAGGTGAT | CAGCTCTCTT | AAATGATGGC | TCTAAACTTG | TTCTTAGATC | TOCAGATAG | 1800 |
| 30 | AACCTGTGCG | GCATGCGAGA | ATCCTTAAAT | ACAGTTTCTA | TACAGAAATA | TGAGGAGGAG | 1860 |
| | AGTTTATTTGA | CCAGTTTCAA | GCTTGATACT | GGAGCTGAGG | ATTCTTCAGG | CTCCAGTCCC | 1920 |
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| | GAAGAACCCAG | AGACAAATAC | ATATGATGTC | CTTATACCCG | AATCTGCTAG | AAATGCTTCC | 2040 |
| | GAAGATTCAA | CTTATCTGGT | TTCAGAAAG | TCACTAAAGG | ATCCTTCTAT | GGAGGGAAT | 2100 |
| 35 | GTGTGTTTC | CTAGCTCTAC | AGACNTAACA | GCACAGCCCG | ATGTTGGATC | AGGCAGAGAG | 2160 |
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| | TCCTTTTCTG | CAGCCCCAGT | GATGTACAG | GGTCCCTCAG | TTACAGATCT | GGAAATGCCA | 2280 |
| | CATTATTCTA | CCTTTGCCIA | CTTCCCAACT | GAGGTAAAC | CTCATGCTTT | TACCCCATCC | 2340 |
| | TCCAGACAA | AGGATTTGGT | CTCCACGGTC | AACGTGGTAT | ACTCGCAGAC | AACCCAAACC | 2400 |
| 40 | GTATACAATG | CAGAGGCCAG | TAATAGTAGC | CATGAGTCTC | GTATTGGTCT | AGCTGAGGGG | 2460 |
| | TTGGAATCCG | AGAAGAAGGC | AGTTATACCC | CTGTGATG | TGTCAGCCCT | GACTTTTATC | 2520 |
| | TGCTAGTGG | TTCTPTGTGG | TATTCTCATC | TACTGGAGGA | AATGCTTCCA | GACTGTACAC | 2580 |
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| 45 | TTACATGCAA | GTATGGGGTT | TACTGAGGAA | TTTGAGACAC | TGAAAGAGTT | TTACAGGAA | 2760 |
| | GTGCAGAGCT | GTACTGTGGA | CTTAGGTATT | ACAGCAGACA | GCTCCAACCA | CCCAGACAC | 2820 |
| | AAGCAACAGA | ATCGATACAT | AAATATCGTT | GCCTATGATC | ATAGCAGGGT | TAAAGTAGCA | 2880 |
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| 50 | TACAAACAG | CAAAAGCTTA | TATGTCTGCC | CAAGGCCAC | TGAAATCCAC | AGCTGAAGAT | 3000 |
| | TTCTGGAGAA | TGATATGGGA | ACATAATGTT | GAAGTTATTG | TCATGATAAC | AAACCTCGTG | 3060 |
| | GAGAAAGGAA | GGAGAAATG | TGATCAGTAC | TGGCCTGCCG | ATGGAGTGA | GGAGTACGGG | 3120 |
| | AACCTTCTGG | TCACCTAGAA | GAGTGTGCAA | GTGCTTGCTT | ATTATACGTT | GAGGAATTTT | 3180 |
| | ACTCTAAGAA | ACACAAAAAT | AAAAAAGGGC | TCCCAAGAA | GAAGACCCAG | TGGACGTGTG | 3240 |
| 55 | GTACACAGT | ATGATACAC | GCAAGTGGCT | GACATGGGAG | TACCAAGATA | CCTCCCTGCA | 3300 |
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| | AGTGGAGGAG | GCACAGACTA | CATCAATGCC | TCCTATATCA | TGGGCTATTA | CCAGAGCAAT | 3840 |
| 65 | GAATTCATCA | TTACCCAGCA | CCCTCTCCTT | CATACCATCA | AGGATTCTG | GAGGATGATA | 3900 |
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| | CTTATGGCTG | AAGAACACAA | ATGTCTATCT | AATGAGGAAA | AACCTATAAT | TCAGGACTTT | 4080 |
| | ATCTTAGAAG | CTACACAGGA | TGATTATGTA | CTTGAAGTGA | GGCACTTTCA | GTGTCTTAAA | 4140 |
| 70 | TGGCCAAATC | CAGATAGCCC | CATTAGTAAA | ACTTTTGAAC | TTATAAGTGT | TATAAAGGAA | 4200 |
| | GAGCTGCCCA | ATAGGGATGG | GCCTATGATT | GTTCATGATG | AGCATGGAGG | AGTGACGGCA | 4260 |
| | GGAACTTTCT | GTGCTCTGAC | AACCCCTATG | CACCAACTAG | AAAAAGAAAA | TTCCGTGGAT | 4320 |
| | GTITACCAAG | TAGCCAGAGT | GATCAATCTG | ATGAGGCCAG | GAGTCTTTGC | TGACATGAG | 4380 |
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| 75 | TTAGAGTCTT | TAGTTTAAAC | CAGAAAGGGG | TGGGGGAGCT | CACATCTGAG | CATTGTTTTT | 4560 |
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| 10 | TTATAGAGGT | TAGGAATTCC | AACTACAGA | AAATGTTTGT | TTTTAGTGTG | AAATTTTAG | 4860 |
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| | GAAATAATCT | GTACTTTATT | GTAATACTCG | CCCTAGTGTG | TCCATGGACC | AAATTTATAT | 5040 |
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| 15 | TTTAGITTA | TGACGTAGTT | CATTAGCTGG | TCTTACTCTA | CCAGITTTCT | GACATTGEAT | 5160 |
| | TGTGTACCT | AAGTCATTAA | CTTTGTTTCA | GCATGTAATT | TTAATCTTTG | TGGAAATAG | 5220 |
| | AAATACCTTC | ATTTTGAAG | AAGTTTTTAT | GAGAAATAAC | CCTTACCAAA | CATTGTTCAA | 5280 |
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| 40 | TTAGATCCAA | TCTACTGTGT | GAACTTCTG | CCAACTCAA | CTGACAAGTA | TTACTTTTAC | 840 |
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| 45 | TAGTTCAAG | CCAGAAAAAT | TTCAGGCTGA | CCAGAGAAAT | TATACCAGCC | TTCTPTTAC | 1140 |
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| 50 | TAACTCTGAA | CTTGATCTTT | TCCCTGAAT | AATGGAACT | GAAGAAATAA | TCAAGGAGGA | 1440 |
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| 80 | CTAAGAAACA | CAAAAATATA | AAAGGGCTCC | CAGAAAGGAA | GACCCAGTGG | ACGTGTGGTC | 3240 |
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| 15 | ACCCAGGGTG TGAACATGTT CTCCATTTTC AAGCTGGAAG AAGTGAGCAG TGTGGGAGTG 4260 |
| | AGGACTGTGA AGGCAAGCCC ATTCAGAGCT ATGGTGCCTG CTGGTGCCTG CCACCTTCAA 4320 |
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| 20 | ATTAGTCTTA ATCTGAATCC ACTTTTCGAA CACCAAAAAT GATCGCATC AATGTATTTT 4560 |
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| 25 | AGCATTTTFA AAAAATAAAT TTAAACTTAC AAACCTTTGT TGTCACAAGT GGTGTTTAT 4860 |
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| | TAAACCCAGT GGGAAATGCT GGAGGAACCA GAGGCACATC CACCTTGGCT GGGAGAGCTA 5100 |
| 30 | TGGTGTGCTC TTGCTTCTGT ATTTCTCTGG ATTTTCTTGA AAGTGTTTT AAATAAAGAA 5160 |
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Nucleic Acid Accession #: NM_021101
Coding sequence: 221..856

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| 45 | CAACATGTG ACCGCCCAGG CCATGTACGA GGGGCTGTGG ATGTCCCTGG TGTGCGAGAG 420 |
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| 50 | ATGGTATGTC AATGGAATCG TTCAAGAAAT CTATGACCTT ATGACCCAG TCAATGCCAG 720 |
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| 55 | TAGAATTTT GGTGATTGTA ATCTAAGTA TGTATTACA AAACAACAA ACAAAACAAA 1020 |
| | AACCCATGTG TTAAATTAAT CAGTGTCTAA CATGGCTTAA TCTTATTFTA TCTTCTTCC 1080 |
| | TCAATATAGG AGGGAATTTT TTTCCATTG TATTACTGCT TCOCATTGAG TACTCATACT 1140 |
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Nucleic Acid Accession #: AF508964.1
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| 15 | TGACCTGCAA | AGTAAAAAAA | AAATTAAGT | TGAGAACAGG | TATAAGTGCA | CACTGAATAG | 1980 |
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| 45 | ATAAAAAATA | AGGATATATT | GTACCCAAACA | GCTAGAAGGA | TGCAAGGTA | GATTTTGT | 3780 |
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| | TCTAGGGAAAT | GATGAAACAG | CAGGCTATTA | GAAATTAAT | TCATATAGTT | CTGTGTCTT | 3900 |
| | TTTCTTTTTT | TTAATCCCTG | AAGGAGATC | AGTAACATAG | CTTCTCTTTT | CTGTACTCTA | 3960 |
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| 50 | CTTCTAATG | CATGTTGTG | ATTATTTGAG | CATTAGAAAA | GGAGAGGTTG | CATTTTGTCT | 4080 |
| | GAATOGGGC | CTGTCACTCT | CCAATAAAGG | TTCTGGCACT | TCAATGCCAG | GCAGGTCTCC | 4140 |
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| | CAGCOGAGC | CAACTGTGTC | CCACAGGAAT | GGGAGCCTAG | GTTTCCAAAT | CTTGTGATTC | 4260 |
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| 55 | TCAATTAATT | TTAAACATTT | TTGTAAAGCCA | ACAAAAGTCT | GTGGGCTGCC | AGTTTATTAC | 4380 |
| | TTTTGCTCTA | AAACATGATC | ATTGTTCTCT | CACGTTATCC | TTCTGCTTTC | COGTTGCAAA | 4440 |
| | TTCACTTTTC | TTTCTTCCG | ACATTGCCAT | TGAGGGCTTT | GTACCCACAA | GCTAAGAAAC | 4500 |
| | TGAGTTTAA | AGCCCACTTA | TCTGCAACAT | GTCAATTACC | TTTGTCTCTC | TCTGTGATTT | 4560 |
| | CCCACATGCT | TGTGACCTTC | AGCTGTCTCC | CTTGTCTGGG | AATTCCTGAC | CAATGTCTTC | 4620 |
| 60 | COCTCAACCC | ATTCCCTGTT | TGGTCTTACT | CCCGTGTGGC | CAGAGACATC | CTAGCAAAATC | 4680 |
| | CTTCTCTCTA | TTATATCTGA | CACTAATTTT | TTTTCAACAG | CGCTCATGTC | TCTTGGCCCA | 4740 |
| | GTCAAGTGTCT | GCCAGGTTTA | GATAGGAAGG | TACATGTCCC | ATTTTCATGG | GTGCCCTTAA | 4800 |
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| | CCCTCTCAGG | CTGCTGAGCT | AGACTAAGGA | ATGCATCCAC | TGTCTATACA | TGAGACACTG | 4920 |
| 65 | ACTCTGTGAC | GACAAAGTA | CAACAGTCT | GAGGCTAAGA | AAGGTTCTAT | TCACAACAGG | 4980 |
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| | CCAGCAGGGA | CTGATTTGAT | TCTGACCCA | CTAGGTTTTT | TTTCCAGAAA | TAGGTAGCAA | 5100 |
| | GGACAGAAAC | TAAACATCC | CAGCCCCACC | CAGCAACACA | GAACACAGGA | GTTTGTCTTT | 5160 |
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| 70 | TCTTCAGACA | GAGCAGAGGC | GACACTCTTT | CAGGGTGTG | TGGAGTAAT | AGCTCGAAGA | 5280 |
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| 75 | AAGATACCTG | ACAAGACCTG | TGCTTTCTTC | CTTTGATAGA | TTTACACCTC | CGCTGTCTTT | 5580 |
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| | GCCAGTCACA | TCTAGTCTAT | GTCCCCAGAG | COCTTGGAGT | TGCGAGCTTT | AGCTGACTTG | 5820 |
| 80 | ACTCCAGGGA | AATTAGTACA | GAAGTAACCA | CTCTATTAAG | TGTGTTCTGC | TATGTTCAACA | 5880 |
| | TGCTCTAGAT | ACCTGCAAA | CATGCCAGGT | TCACTATAAG | ACATAGGGGA | AGATTAAGGA | 5940 |
| | CTCTTTTGA | CAGACCACTA | ATTGAATTTG | CTGCCAGGTG | CTGCCAGACT | GAATTTGGCT | 6000 |
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Nucleic Acid Accession #: NM_006180.1
Coding sequence: 352..2820

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Seq ID NO: C110 DNA Sequence
Nucleic Acid Accession #: Eos sequence
Coding sequence: 939..2372

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| 5 | CCGAGGGCTC | TGCCCGCGCC | TGGCTTCTTC | GTAGCTGGAT | GCATATCGTG | CTCCGGGCAG | 180 |
| | CGCGGGCGCA | GGGCACCGCT | TGCGGCACAC | CCTAGCACAC | ATGAACACGC | GCAAGAGCTG | 240 |
| | AACCAAGCAC | GGTTTCCATT | TCAAAAAGGG | AGACAGCCCTC | TACCGCGATT | GTAGAGAGAG | 300 |
| | CTGTGGTGTG | AATTAGGGAC | CGGAGGCGGT | CGAACGGAGG | AACGGTTTAT | CTTAGAGACT | 360 |
| | AATTTTCTGG | AGTTTCTGCC | CCTGCTCTGC | GTACGCCCTC | ACGTCACTTC | GCCAGCAGTA | 420 |
| 10 | GCAGAGGCGG | CGCGGGCGGC | TCCCGAAAT | GGTTTGGAGC | AGGAGCCTCG | CTGGCTGCTT | 480 |
| | CGCTCGCGCT | CTACGCGCTC | AGTCCCOCGGC | GGTAGCAGGA | GCTTGGACCC | AGGCGCCGCC | 540 |
| | GGCGGGCGTG | AGGCGCCGGA | GCCCCGCCCTC | GAGGTGCATA | CCGACCCCCC | ATTGCGCATCT | 600 |
| | AACRAAGGAAT | CTGCGCCCCA | GAGAGTCCCG | GGAGCGCCGC | CGGTGCGTGC | CCGGCCCGCC | 660 |
| | GGGCCATGCA | GCGACGCGCG | CCGCGGAGCT | CCGAGCAGCG | GTAGCGCCCC | CCGTGTAAGC | 720 |
| 15 | GGTTGCGTAT | GCGGGGCCA | CTGTGAACCC | TGCCGCTGCG | CGGAACACTC | TTGCTCCCG | 780 |
| | ACCAGCTCAG | CCTCTGATAA | GCTGGAACCG | GCACGCCCGC | AACAAACACC | GAGGAGTTAA | 840 |
| | GAGAGCCCGA | AGCGCAGGGA | AGGCCCTCCCC | GCACGGGTGG | GGGAAAGCGG | CCGGTGCACG | 900 |
| | GCGGGGACAG | GCACCTCGGC | TGGCACTGGC | TGCTAGGGAT | GTGCTCTCTG | ATAAGGTGGC | 960 |
| | ATGGACCCGC | CATGCGCGCG | CTCTGGGGCT | TCTGCTGGCT | GGTTGTGGGC | TTCTGGAGGG | 1020 |
| 20 | CCGCTTTGGC | CTGCCCCACG | TCCGTCAAAT | GCACTGCCCTC | TGGATCTTGG | TGCAGCGACC | 1080 |
| | CTTCTCCTGG | CATCGTGGCA | TTTCCGAGAT | TGGAGCCTAA | CAGTGTAGAT | CTTGAGAACA | 1140 |
| | TCACCGAAT | TTTCATCGCA | AACCAAGAAA | GGTTAGAAAT | CATCAACGAA | GATGATGTTC | 1200 |
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| 25 | CGAGTTTGGC | TAGGAACACT | TTCCGTCAAC | TTGACTGTTC | TGAACCTGATC | CTGGTGGGCA | 1380 |
| | ATCCATTTAC | ATGCTCCTGT | GACATTATGT | GGATCAAGAC | TCTCCAAAG | GCTAAATCCA | 1440 |
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| | ACCTGCAGAT | ACCAATTTGT | GGTTTGCCAT | CTGCAAACTC | GGCCGACCTT | AACCTCACTG | 1560 |
| | TGGAGGAAGG | AAAGTCTATC | ACATTAATCT | GTAGTGTGGC | AGGTGATCCG | GTCTCTAATA | 1620 |
| 30 | TGATTTGGC | TGTTGGTAAC | CTGTTTCCA | AACATATGAA | TGAAACAAGC | CACACACAGG | 1680 |
| | GCTCCTTAAG | GATAACTAAC | ATTTCATCCG | ATGACAGTGG | GAAGCAGATC | TCTTGTGTGG | 1740 |
| | CGGAAATCT | TGTAGGAGAA | GATCAAGATT | CTGTCAACCT | CACGTGTGAT | TTTGCACCAA | 1800 |
| | CTATCACATT | TCTCGAATCT | CCAACCTCAG | ACCAACACTG | GTGCAATCCA | TTCACTGTGA | 1860 |
| | AAAGCAACCC | CAAAACGAGC | CTTCAGTGGT | TCTATAACGG | GGCAATATTC | AATGAGTCCA | 1920 |
| 35 | AATACATCTG | TACTAATAAT | CATGTTACCA | ATCACACGGA | GTACCAACGC | TGCTCCAGC | 1980 |
| | TGGATAATCC | CACTCACATG | AACAATGGGG | ACTACACTCT | AATAGCCAG | AATGAGTATG | 2040 |
| | GGAGGATGA | GAAACAGATT | TCTGCTCAGT | TCATGGGCTG | GCCTGGARTT | GACGATGGTG | 2100 |
| | CAAAACCCAA | TATCTCTGAT | GTAAATTTATG | AAGATTATGG | AACCTCAGCG | AATGACATCG | 2160 |
| | GGGACACCA | GAACAGAGT | AATGAAATCC | CTTCCACAGA | CGTCACTGAT | AAAACCGGTC | 2220 |
| 40 | GGGAACATCT | CTGCTCTAT | GCTGTGGTGG | TGATTCGGTC | TGTGGTGGGA | TTTTCCTTTT | 2280 |
| | TGGTAATGCT | GTTCCTGCTT | AAGTTGGCAA | GACATCCCAA | GTTCGGCATG | AAAGSTTTTG | 2340 |
| | TTTTGTTTCA | TAAGATCCCA | CTGGATGGGT | AGCTGAAATA | AAGGAAAGA | CAGAGAAAGG | 2400 |
| | GGCTGTGGTG | CTGTGTGGTT | GATGCTGCCA | TGTAAGCTGG | ACTCCTGGGA | CTGCTGTGG | 2460 |
| | CTTATCCCGG | GAGGTGCTGC | TTATCTGGGG | TTTTCTGGTA | GATGTGGGCG | GTGTTTGGAG | 2520 |
| 45 | GCTGTACTAT | ATGAAGCCCTG | CATATACTGT | GAGCTGTGAT | TGGGGAACAC | CAATGCAGAG | 2580 |
| | GTAACTCTCA | GCGAGCTAAG | CAGCACCTCA | AGAAACATG | TTAAATTAAT | GCTTCTCTTC | 2640 |
| | TTACAGTAGT | TCMAATACAA | AACGAAATG | AAATCCCAAT | GGATGTACT | TCTCTTCTGA | 2700 |
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| | TTGACCTGCA | AAGTTAAAAA | AAAATTAAG | TTGAGAACAG | GTATAAGTGC | ACACTGAATA | 2820 |
| 50 | GTCTAATCTA | CATGTAAAC | ATATTTTATG | GTGATTTTCT | ATACTCTAAT | CAGCACTGAA | 2880 |
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| | GTCCAAATGT | TTAGCTTAGG | TCTGAGAGTC | AAACAATGTT | AAGGATTGTC | TTAAAGTTCC | 3060 |
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| 55 | AAGAAABAAA | ACAAGAACAA | GCAGCAACAG | CTGTTTGTGT | GGGGCTATAG | ATTTAAGTTA | 3180 |
| | GGCATAGTCA | ATTTCAGAAT | AACTAAGAGT | GGATATATAG | CATATGGTGA | AATTATAACC | 3240 |
| | TTGCCCTTTT | TTATTTGGCC | TCTGCGATCC | ACCTGCTTTT | TAGAAGTCTG | CCGAGTGAGA | 3300 |
| | AGGCCACAGT | ATCTCATGCT | GTTTGCATTA | CAGAACCTGCA | GCTTTTCTAC | TCTGAAAAGG | 3360 |
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| 60 | CCCCCTACAA | CATAGCTGCA | TACTGCTGGG | TTTTCATGGG | TAGGAAAGCT | TGTCTTGACC | 3480 |
| | CCAGCAGCAA | AGAGGTGGCA | GCTCCTTAAT | GAATATATGC | TTTATAATGT | CCTTCTTCAT | 3540 |
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| 65 | TGTTCTCTTT | TTATCAGGAG | GACTTCAGAG | CCAGGCCCTGC | AGCATTTTGT | TTGAAAACAC | 3780 |
| | AATCAGCTCT | GACAGTTAGA | CATGCACACA | GACGCCATAG | CTGGATTGGA | AACATTGATG | 3840 |
| | TTTAAABAA | TTATTTTTTT | TGGAATATAGT | TGCACAAATG | CTGCAATTTA | GCTTTAAGGT | 3900 |
| | TCATAGGATT | TTTAACTAGT | CCAACACAGT | CAGAAACATT | GTTTTGAATC | CTCTGTAAAC | 3960 |
| | CAAGGCATTA | ATCTTAATTA | ACCAGGATCC | ATTAGGTATC | CACCTGTATAT | AAAAAGGATA | 4020 |
| 70 | TCATAATGA | ATATTTTATA | CTGCATCCTT | TACATTAGCC | ACTAAATACG | TTATTGCTTG | 4080 |
| | ATGAAGACCT | TTACAGAAAT | CCTATGGATT | GCAGCAATTC | ACTTGGCTAC | TTCTATCCCA | 4140 |
| | TGCTTTAAG | AGGGGCAGTT | TCTCBAAGGC | AGAAACATGC | CGCCAGTTCT | CAGTTTTCCT | 4200 |
| | TCCTAACCTC | ATTGATATGT | AAGGGCAGCT | GGCCCCCAAT | GTGGGGAGGT | CCGAAACATT | 4260 |
| | TCGTGAATTC | CATTTTCTTG | TTCGCGGCTA | AATGACAGTT | TCTGTCAATTA | CTTAGATTTC | 4320 |
| 75 | GATCTTCC | AAAGGTGTG | ATTTACAAAG | AGGCCAGCTA | ATAGCAGAAA | TCATGACCTT | 4380 |
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| | GAGANTCAG | CATTTGGTAC | AAAAAGATT | TTTAAAGCTT | TTATGTTATA | CCATGGAGCC | 4500 |
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| 80 | TTTTAAATGG | AGAGAAATGG | ACAGATAAGG | CCATTTAATA | TATCAAGAT | CAGTTGACAT | 4680 |
| | CTCTAGGGA | ATGATGAAAA | CAGCAGGCTA | T | | | 4711 |

Seq ID NO: C111 DNA Sequence
Nucleic Acid Accession #: NM_130830.1
Coding sequence: 1..1746

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| | GGGCGACGCA | TTGTGGCGGT | GCCCACCCCT | CTGCCCTGGA | ACGCCATGAG | CCTGCAGATC | 180 |
| | CTCAACACGC | ACATCACTGA | ACTCAATGAG | TCCCCGTTCC | TCAATATCTC | AGCCCTCATC | 240 |
| | GCCTTGAGGA | TTGAGAGAGAA | TGAGCTGTGG | CGCATCACGC | CTGGGGCCTT | CCGAAACCTG | 300 |
| 10 | GGCTGCTGCG | GCTATCTCTAG | CCTCCGCCAAC | AACAAAGCTGC | AGGTTCTGCC | CATCGSCCTC | 360 |
| | TTCCAGGGCC | TGGACAGCCT | TGAGTCTCTC | CTTCTGTCCA | GTAACCAAGT | GTTCAGATC | 420 |
| | CAGCGGCTCC | ACTTCTCCCA | GTGCAGCAAC | CTCAAGGAGC | TGCAGTTGCA | CGGCAACCAC | 480 |
| | CTGGAATACA | TCCCTGACGG | AGCCTTCGAC | CACCTGGTAG | GACTCACGAA | GCTCAATCTG | 540 |
| | GGCAGAATA | GCCTCACCCA | CATCTCACCC | AGGCTCTTCC | AGCACCTGGG | CAATCTCCAG | 600 |
| 15 | GTCTCCGGCG | TGTATGAGAA | CAGGCTCAGC | GATATCCCCA | TGGGCACTTT | TGATGGGCTT | 660 |
| | GTTAACTTGC | AGGAACCTGG | TCTACAGCAG | AACCAGATTG | GACTGCTCTC | CCCTGGTCTC | 720 |
| | TTCCACAACA | ACACAAACCT | CCAGAGACTC | TACCTGTCCA | ACAAACCACAT | CTCCAGCTG | 780 |
| | CCACCCAGCA | TCITCATGCA | GCTGCCCCAG | CTCAACCCGC | TTACTCTCTT | TGGGAATTCC | 840 |
| | CTGAGGAGAC | TCITCTCTGG | GATCTCTGGG | CCCATGCCCA | ACCTGGGGGA | GCTTTGGCTC | 900 |
| 20 | TATGACAACC | ACATCTCTTC | TCTACCCGAC | AATGTCTTCA | GCAACCTCCG | CCAGTTGCAG | 960 |
| | GTCTCTGATC | TTAGCCGCAA | TCAGATCAGC | TTTATCTCCC | CGGGTGCCTT | CAAACGGGCTA | 1020 |
| | ACGGAGCTCC | GGGAGCTGTC | CCTCCACACC | AACGCACTGC | AGGACCTTGA | CGGGAATGTC | 1080 |
| | TTCCGCATGT | TGGCCAACTT | GCAGAACATC | TCCCTGCAGA | ACATGGCCCT | CAGACAGCTC | 1140 |
| | CCAGGGAATA | TCITTCGCCAA | CGTCAATGGC | CTCATGCCCA | TCCAGCTGCA | GAACCAACCAG | 1200 |
| 25 | CTGAGAGACT | TGCCCTCTGG | CATCTTCGAT | CACCTGGGGA | AACCTGTGTA | GCTCGGCTGC | 1260 |
| | TATGACAATC | CCCTGAGGTA | TGACTCAGAC | ATCCTTCCCG | TCCGCAACCT | GCTCTGCTC | 1320 |
| | AAACAGCTTA | GGTATGGGAC | GGACACTGTA | CCTGTGTGTT | TCAGCCCAAC | CAATGTCCGA | 1380 |
| | GGCCAGTCCC | TCATTATCAT | CAATGTCAAC | GTTCCTGTTT | CAAGCGTCCA | TGTCCCTGAG | 1440 |
| | GTGCTTAGTT | ACCCAGAAC | ACCATGGTAC | CCAGACACAC | CCAGTTAACC | TGACACCCA | 1500 |
| 30 | TCCTGTCTTT | CTACCACTGA | GCTAACCCAG | CCTGTGGAAG | ACTACACTGA | TCTGACTACC | 1560 |
| | ATTGAGGTCA | CTGATGACCG | CAGCGTTTGG | GGCATGACCC | AGGCCCCAGG | CGGGCTGGCC | 1620 |
| | ATTGCCGCCA | TGTAAATTGG | CATTGTGACC | CTGGCCTGCT | CCCTGGCTGC | CTGGCTGGCC | 1680 |
| | TGTTGCTGCT | GCAAGAGAG | BAGCCAAGCT | GTCCTGATGC | AGATGAAGGC | ACCCATGAG | 1740 |
| | TGTTAA | | | | | | 1746 |

Seq ID NO: C112 DNA Sequence
Nucleic Acid Accession #: NM_002658.1
Coding sequence: 77..1372

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| | | | | | | | |
| 40 | GTCCCGCAG | CGCCGTCGGG | CCCTCTGCTC | GCAGGCAACC | GAGGCGGCGG | CGGTCTAGCG | 60 |
| | CCCCGACCTC | GCCACCATGA | GAGCCCTGCT | GGCGCGGCTG | CTTCTCTGGG | TCCTGGTGGT | 120 |
| | GAGCGACTCC | AAGGCGCAGC | ATGAACCTCA | TCAAGTTCCA | TCGAACCTGG | ACTGTCTAAA | 180 |
| 45 | TGGAGGAACA | TGTGTGTCCA | ACAAGTACTT | CTCCAACATT | CACCTGGTGA | ACTGCCCAAA | 240 |
| | GAAATTCGGA | GGCGAGCACT | GTGAAATAGA | TAAGTCAAAA | ACCTGCTATG | AGGGGAATGG | 300 |
| | TCACCTTTAC | CGAGGAAGGG | CCAGCACTGA | CACCATGGGC | CGGCCCTGCC | TGCCCTGGAA | 360 |
| | CTCTGCCACT | GTCCCTCAGC | AAACGTACCA | TGCCACAGA | TCGATGCTC | TTGAGCTGGG | 420 |
| | CCTGGGGA | CATAATTA | GCAGGAACCC | AGAACACCGG | AGGGGACCTT | GGTGTCTATG | 480 |
| 50 | GCAGGTGGGC | CTAAAGCCGC | TGTGCCAAGA | GTGCATGGTG | CATGACTGCG | CAGATGGAAA | 540 |
| | AAAGCCCTCC | CTTCCCTCCG | AAGAATTAAA | ATTTCACTGT | GGCCAAAGAA | CTCTGAGGCC | 600 |
| | CCGCTTTAAG | ATTTATGGGG | GAGAATTAC | CACCATGGAG | AACCAAGCCT | GGTTTGGGGC | 660 |
| | CATCTACAGG | AGGCACCGGG | GGGGCTCTGT | CACCTACGTC | TGTGGAGGCA | GCCTCATCAG | 720 |
| | CCCTGTCTGG | GTGATCAGCG | CCACACACTG | CTTCATTGAT | TACCCAAAGA | AGGAGGACTA | 780 |
| 55 | CATGGTCTAC | CTGGGTGGCT | CAAGGCTTAA | CTCCAACAG | CAAGGGGAGA | TGAAGTTTGA | 840 |
| | GGTGGAAAC | CTCATCTTAC | ACAAGGACTA | CAGCGCTGAC | ACGCTTGTCT | ACCACAACGA | 900 |
| | CATGGCCTTG | CTGAAGATCC | GTTCCAAGGA | GGGCAGGTGT | GCGCAGCCAT | CCCGGACTAT | 960 |
| | ACAGAACCAT | TGCTTGCCTT | CGATGTATAA | CGATCCCCAG | TTTGGCCAAA | GCTGTGAGAT | 1020 |
| | CATGGGCTTT | CGAAAAGAGA | ATTCTACCGA | CTATCTCTAT | CCGGAGCAGC | TGAAAATGAC | 1080 |
| 60 | TGTTGTGAAG | CTGATTTCCT | ACCGGGAGTG | TCAGCAGCCC | CACCTACTAG | GCTCTGAAGT | 1140 |
| | CACCACCAAA | ATGCTATGTG | CTGCTGACCC | CCAAATGGAA | ACAGATTCTT | GCCAGGGAGA | 1200 |
| | CTCAGGGGGA | CCCTCTGCTC | GTTCCTCTCA | AGGCGGCAATG | ACTTTGACTG | GAATTGTGAG | 1260 |
| | CTGGGGCGGT | GGATGTGCC | TGAAGGACAA | GCCAGGCGTC | TACACGAGAG | TCTCACACTT | 1320 |
| | CTTACCCCTG | ATCCGCACTC | ACACCAAGGA | AGAGATGGC | CTGGCCCTCT | GAGGGTCCCT | 1380 |
| 65 | AGGGAGGAAA | CGGGCACCAC | CCGCTTCTT | GCTGGTTGTC | ATTTTTCAG | TAGAGTCATC | 1440 |
| | TCCATCAGCT | GTAAAGAGAG | ACTGGGAAGA | TAGGCTCTGC | ACAGATGGAT | TTGCCCTGGG | 1500 |
| | CACCACCAGG | GTAAACGACA | ATAGCTTTAC | CCTCAAGGAT | AGGCCCTGGG | GCTGGCTGCC | 1560 |
| | CAGACCTCTT | GGCCAGGATG | GAGGGTGGT | CCTGACTCAA | CATGTTACTG | ACCAGCAACT | 1620 |
| | TGCTCTTTTC | TGGACTGAAG | CCTGCAGGAG | TTAAAAAGGG | CAGGGCATCT | CCTGTGCATG | 1680 |
| 70 | GGCTCBAAGG | GAGAGCCAGC | TCCCCCGACC | GGTGGGCAIT | TGTGAGGCC | ATGGTTGAGA | 1740 |
| | ARTGAATAAT | TTCCCAATTA | GGAGGTGTAA | GCAGCTGAGG | TCTCTGAGG | GAGCTTAGCC | 1800 |
| | AATGTGGGAG | CAGCGGTTTG | GGGAGCAGAG | ACACTAACGA | CTTCAGGGCA | GGGCTCTGAT | 1860 |
| | ATTCATGAA | TGATCAGGA | AATATATATG | TGTGTGTATG | TTTGCACACT | TGTTGTGTGG | 1920 |
| | GCTGTGAGTG | TAAGTGTGAG | TAAAGCTGG | TGTCGTATTC | TTAAGTCTAA | ATATTTCTCT | 1980 |
| 75 | AAACTGTGTG | GACTGTGATG | CCACACAGAG | TGGTCTTCTT | GGAGAGGTTA | TAGGTCATTC | 2040 |
| | CTGGGGCCTC | TGGGTCCCTC | CACGTGACAG | TGCTGGGAA | TGTACTTATT | CTGCAGCATG | 2100 |
| | ACCTGTGACC | AGCAGTGTCT | CAGTTTCACT | TTACATAGA | TGTCCTTTTC | TTGGCCAGTT | 2160 |
| | ATCCCTTCTT | TTAGCCTTAG | TTATCCCAAT | CCTCACTGGG | TGGGGTGAGG | ACCACCTCCT | 2220 |
| | ACACTGAATA | TTATATTTC | ACTATTTTAA | TTTATATTTT | TGTAATTTTA | AATAAAGTGG | 2280 |
| 80 | ATCAATAAAA | TGTGATTTTT | CTGA | | | | 2304 |

Seq ID NO: C113 DNA Sequence
Nucleic Acid Accession #: XM_087254.1
Coding sequence: 47..2332

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| ATGTTCAATT | AATGGCATGA | AATACCAAGA | AATTAATGGT | AGACTTGTAC | CCGAGGAGCC | 120 |
| AAACCCAGAC | TCTTCAGAAG | GAACCTTATC | TTATCTTAGT | AGTTTATCOC | ATCTTAACAA | 180 |
| CTTATCCCAT | CTTACAAACA | GTTCCTCTTT | CAGAACCAGT | CCTGAAAATG | AAACTGAACT | 240 |
| AATTAAGAA | CATGATCTCT | TCTTTAAAGC | AGTCAGTCTC | TGTCACACIG | TACAGATTAG | 300 |
| CAATGTTCAA | ACTGACTGCA | CTGGIGATGG | TCCCTGGCAA | TCCAACTTGG | CACCATCGCA | 360 |
| GTTCGAGTAC | TATGCATCTT | CACCAGATGA | AAAGGCTCTA | GTAGAAGCTG | CTGCAAGGAT | 420 |
| TGGTATTGTT | TTTATTGGCA | ATTCTGAAGA | AACTATGGAG | GTAAAACTC | TTGGAAAATC | 480 |
| GGAAAGGTAC | AAACTGCTTC | ATATTCTGGA | ATTGATTTCA | GATCGTAGGA | GAATGAGTGT | 540 |
| AATTTGTTCA | GCACCTTCAG | GTGAGAAGTT | ATTATTGTCT | AAAGGAGCTG | AGTCATCAAT | 600 |
| TCTCCCTAAA | TGTATAGGTG | GAGAAATAGA | AAAAACCAGA | ATTCTATGAG | ATGAATTTGC | 660 |
| TTTGAAAGGG | CTAAGAACTC | TGTGTATAGC | ATATAGAAAA | TTTACATCAA | AAGAGTATGA | 720 |
| GGAAATAGAT | AAACGCATAT | TTGAAGCCAG | GACTGCCTTG | CAGCAGCCGG | AAGAGAAATT | 780 |
| GGCAGCTGTT | TTCCAGTTCA | TAGAGAAAGA | CCTGATATTA | CTTGGAGCCA | CAGCAGTAGA | 840 |
| AGACAGACTA | CAGATATAAG | TTGAGAAAC | TATTGAAGCA | TTGAGAATGG | CTGGTATCAA | 900 |
| AGTATGGGTA | CTTACTGGGG | ATAAACATGA | AACAGCTGTT | AGTGTGAGTT | TATCATGTGG | 960 |
| CCATTTCAT | AGAACCNTGA | ACATCCCTGA | ACTTATAAAC | CAGAAATCAG | ACAGCGAGTG | 1020 |
| TGCTGAACAA | TTGAGGCAGC | TTGCCAGAA | AATTACAGAG | GATCATGTGA | TTGAGCATGG | 1080 |
| GCTGGTAGTG | GATGGGACCA | GCCCTATCTC | TGCACTCAGG | GAGCATGAAA | AGTATTTTAT | 1140 |
| GGAGGTTTGC | AGAAATTTGT | CAGCTGTATT | ATGCTGTGTG | ATGGCTCCAC | TGCAGAAAGC | 1200 |
| AAAGTAATA | AGACTATATA | AAATATCACC | TGAGAAACCT | ATAACATTGG | CTGTTTGTGA | 1260 |
| TGGTGTCAAT | GACCTAAGCA | TGATACAAGA | AGCCCATGTT | GGCATAGGAA | TCATGGGTAA | 1320 |
| AGAAGGAAGA | CAGGCTGCAG | GAACAGTGA | CTATGCAATA | GCCAGATTGA | AGTTCCTCTC | 1380 |
| CAAAATGCTT | TTTGTCTCAT | GTCAATTTTA | TTATATTAGA | ATAGCTACCC | TTGTACAGTA | 1440 |
| TTTTTTTAT | AAGAAATGTT | GCTTTATCAC | ACCCAGTTT | TTATATCAGT | TCTACTGTTT | 1500 |
| GTTCCTCAG | CAACATTTGT | ATGACAGCGT | GTACCTGACT | TTATACAATA | TTTGTTTTAC | 1560 |
| TTCCCTACCT | ATTCTGATAT | ATAGTCTTTT | GGACAGCAT | GTAGACCCCT | ATGTGTTACA | 1620 |
| AAATAAGCCC | ACCCCTTTATC | GAGACATTAG | TAAAAACCGC | CTCTTAAGTA | TTAAACATT | 1680 |
| TCTTTATTTG | AGCCTCTTGG | GCTTCAGTCA | TGCCCTTATT | TTCTTTTGTG | GATCCTATT | 1740 |
| ACTAATAGGG | AAAGATACAT | CTCTGCTTGG | AAATGGCCAG | ATGTTTGGAA | ACTGGACATT | 1800 |
| TGGCACTTTG | GTCTTCACAG | TCATGGTTAT | TACAGTCACA | GTAAAGATGG | CTCTGGAAAC | 1860 |
| TCATTTTGG | ACTTGGATCA | ACCATCTCGT | TACCTGGGGA | TCTATTATAT | TTTATTTTGT | 1920 |
| ATTTTCCTTG | TTTATGGAG | GGATTCTCTG | GCCATTTTGT | GGCTCCGAGA | ATATGTATTT | 1980 |
| TGTTGTTATT | CAGCTCCGTG | CAAGTGGTTC | TGCTTGGTIT | GCCATAATCC | TCATGGTTGT | 2040 |
| TACATGCTTA | TTTCTTGATA | TCATAAAGAA | GGTCTTTGAC | GGACACCTCC | ACCCCTACAG | 2100 |
| TACTGAAAG | GCACAGCTTA | CTGAAACAAA | TGCAGGTATC | AAGTGCTTGG | ACTCCATGTT | 2160 |
| CTGTTTCCCG | GAGGAGAGAG | CAGCGTGTGC | ATCTGTTGGA | AGAAATGCTG | AACGAGTTAT | 2220 |
| AGGAAGATGT | AGTCCAAACC | ACATCAGCAG | ATCATGGAGT | GCATCCGATC | CTTTCTATAC | 2280 |
| CAACGACAGG | AGCATCTTGA | CTCTCTCCAC | AATGGACTCA | TCTACTTGTG | AAAGGGCCAG | 2340 |
| TAGTACTTTG | TGGGAGCCAG | TTCACTCTCT | TTCTTAAAT | TCAGTGTGAT | CACCCCTGTTA | 2400 |
| ATGGCCACAC | TAGCTCTGAA | ATTAATTTCC | AAAATCTTTG | TAGTAGTTCA | TACCCACTCA | 2460 |
| GAGTATAAT | GGCAACCAAA | CAGAAAGCAT | TAGTACAAGC | CCCTCCCAAC | ACCTTAAATT | 2520 |
| TGAATCTGAA | CATGTTAAAA | TTTGAGAATA | AAGAGACATT | TTTCATCTCT | TTGCTGGTIT | 2580 |
| TGTCCTCTGT | GCTTATGGGA | CTCTAATGG | CATTTAGTTC | TGTTGCTGAG | GCCATTATAT | 2640 |
| TTTAATATAA | ATGTAGAAAA | AAGAGAGAAA | TCCTAGTAAA | GAGTATTTT | TAGTATTAGC | 2700 |
| TTGATTATG | ACTCTCTTAT | TTAAATCTGC | TCTCTGTAAT | TAIGCTGAAA | GTITGCTTGT | 2760 |
| AGAACTCTAT | TTTTTATTA | GAGTTATATT | TAAAGCTTTT | CATGGGAAAA | GTAAATGTGA | 2820 |
| ATACTGAGGA | ATTTTGGTCC | CTCAGTGACC | TGTTTGTGTA | ATTCAATTAAT | GCATTCAGAG | 2880 |
| TTCCAGAGAG | AAATATGGAG | AATCATTTCC | AACCATTTAT | TACTGCAATA | TGGGGAGTAA | 2940 |
| ATTATATACA | ATTCCTCTAA | CTGTACTGTA | ACACAGCCCT | TAAAGTTCAG | CATATAAATG | 3000 |
| CAAGGGTATA | TCATATATAC | AAATCAGGAA | TCAGGTCCGT | TCACCGAAGT | TCAAATTTGAT | 3060 |
| GTCTACTAAT | ATTTTGTGGA | CAGAGTATAA | AGACCCCTATA | GTGGGTAAAT | TAGATACTAT | 3120 |
| TAGCATATTA | TTAATTTAAT | GTCTTTATCA | TTGGATCTTT | TGCATGCTTT | AATCTGGTTA | 3180 |
| ACATATTTAA | ATTTGCTTTT | TTTCTCTTTA | CCTGAAAGCT | CTGTGTATAG | TATTTTATGA | 3240 |
| CATCGTTGTA | CAGTTTAACT | ATATCAATAA | AAAGTTTGGG | CAGTATTTAA | ATATTGCAAA | 3300 |
| TATGTTTAAAT | TATACAAATC | AGAATAGTAT | GGGTAAATTA | ATGAATACAA | AAAGAGAGAG | 3360 |
| CTCTTCTGTC | AGCCGACTTA | GACATGCTCT | TCCCTTTCTA | TAAGCTAGAT | TTTGAATATA | 3420 |
| AGGCTTTCTAG | TTAATAATCT | TATTTTCAGG | TTATGTCTAT | TAACTTATAG | CAAACTACCA | 3480 |
| CAATACAGTG | AGTTCTAGCCA | GTGTCCCAAT | ACAGGACATA | TTTCAGGTGT | GGCTGTGGAA | 3540 |
| TGTAAATATG | CTCAACTTGT | ATCAGGTAAT | GTTAGCAATA | AATTAATATG | TAAGAAATGAT | 3600 |
| TAATCGGGTA | CATGTTACTG | TAATTAATCT | ATTGCACTTC | AAAACCTAAC | TTCCATCTCT | 3660 |
| AATTATCAAA | GTAGTTCAGT | ATTGCTATTT | GTTTTGTGTT | TATTGAAAAG | TAATGTGTCT | 3720 |
| TTAAGATTTA | GAGGTGATTA | TTAGCTTGAG | AACTATTACC | CAGCTCTAAG | CAAAATATGA | 3780 |
| TTGTATACAT | ATTAGATATA | TGGTTAAATG | CGGTTTACCC | AAGTTTTCOC | TTGAAAATGT | 3840 |
| AATTCCCTTA | TGGAGATTTA | TTGTGCAACC | CTAAGCTTCC | TTCCCATTTT | ATGAATATATA | 3900 |
| GGCTTCTAGA | ATTGCACTGG | CAGGGGAAAG | AATGGTAGAG | ACAGAAATTA | AGACTTTATC | 3960 |
| CTTGTGTCGT | TGTAAATCAT | TATTTTCTTG | CTAAGTAAAC | ATTGCTCTGT | TCCAGTGATG | 4020 |
| TAAGGATATT | AGGTTATTA | GCTAAATATT | AATTTTCAAA | AATAGTCTCT | CTTTAACTTA | 4080 |
| GATATTTTCA | AGCTGGATTT | AGGAGATCT | GTATTTCTGG | AAGTACTAAA | AAGATAATA | 4140 |
| CAACGTACAA | TGCTGCAATT | CATTAATTTA | TGTTCCAGAA | GAGGAAATTA | TGAAGATATA | 4200 |
| CTCAGTAGAG | TACTAGGTGG | GAGGATATGG | AAATTTGCTC | ATAAATCTCT | TTATAAAACG | 4260 |
| TGATATATAA | AAATGACAC | CCAGTAGGCC | TGCATTACAT | TTACATGACC | GTGTTTATTT | 4320 |
| GCATCAAAAT | AAACCTGATA | CTGACACCA | ACAAAGACTC | CAAGTCTATA | AAATAGCCTA | 4380 |
| TGACCAACTG | CAGCAAGACA | GGAGGTGAGC | TCGCTTATAA | TGGTGTCTAA | AGTGTGATTT | 4440 |
| ATGTAATTTT | CTGTACTCAC | CATTGGAAGT | TAGTTAAGGA | GAACCTTATT | TTTTTAAAAA | 4500 |
| AAGTAAATGG | CAACCACTAG | TGTGCTCATC | CTGAACCTGT | ACTCCAAATC | CACCTCGTTT | 4560 |
| TTAAGCAAAA | ATTATCTTGT | GATTTTATGA | AAAGAGTTTT | CTATTTTATT | AAGAAAGTAA | 4620 |
| CAATGCACTC | TGCAAGCTTT | CAGTAGTTTT | CTAGTGTCTAT | ATTCTATCTG | TAAAACTCTT | 4680 |
| ACTACGTAAC | CAGTAATCAC | AAGGAAAGTG | TCCCTTTTGC | ATATTTCTTT | AAAAATCTTT | 4740 |
| CTTTGGRAAG | TATGATGTTG | ATAATTAATC | TACCTTATAT | TGCCAAAAAC | AGAGCAAAAT | 4800 |
| GCTAAATACG | TTATTGCTAA | TCAGTGTCT | CAAAATGATG | TGCTTCCCTT | TGCCCTGCTT | 4860 |
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GCTGCTTTAA GTGACTCAGC ACCCTGCTTC AGCTTCAGCA GGCGTAGGCT CACCTGGGC 4980
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Seq ID NO: C114 DNA Sequence

Nucleic Acid Accession #: XM_087461.1

Coding sequence: 236..1138

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Seq ID NO: C115 DNA Sequence

Nucleic Acid Accession #: XM_051522.4

Coding sequence: 127..1215

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TGGCCATGCA ACAGCAGCGA CTGCATCGTG GTGGACACGG TGATGTGTCC CAACATGCC 240
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Seq ID NO: C116 DNA Sequence
Nucleic Acid Accession #: NM_000350.1
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Seq ID NO: C117 DNA Sequence

Nucleic Acid Accession #: NM_006671.2

Coding sequence: 138..1820

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 GAAGTCGAGC GCTTCACTGG TTTTACTAAA TCAGACCCAG AACCTGGTGA TTGGGCTCGG 1800
 GCTCCTGCCC GCTCCTGTC TTTGCGCATA CTTTGTCACT GAGCAGAAGC TACAGGTGG 1860
 GGAATATGTC CTCTTTGGCA CCTACATTAT CAGCTGTGAC ATGCCCTCA ATTGGTTTGG 1920
 CACCTACTAC AGGATGATCC AGACCAACTT CATTCAGATG GAGAACATGT TTGACTTGCT 1980
 65 GAAGAGGAG ACAGAACTGA AGGACCTTCC TGGAGCAGGG CCGCTTGGCT TTCAGAGGG 2040
 CCGTATTGAG TTTGAGAACG TGCACTTCAG CTATGCCAT GGGCGGAGGA CTCTGAGGA 2100
 CBTGTCTTC ACTGTGATGC CTGGACAGAC ACTTGCCTG GTGGGCCAT CTGGGCGAG 2160
 GAAGAGCACA ATTTTGGGCC TGCTGTTTGG CTTCTACGAC ATCAGCTCTG GCTGCTATCG 2220
 AATAGATGGG CAGGACATTT CACAGGTGAC CCGGCTCTCT CTCGGTCTC ACATTGGAGT 2280
 70 TGTGCCCAA GACACTGTCC TCTTAAATGA CACCATCGCC GACAATATCC GTTACGGGCC 2340
 TGTACAGCT GGAATGATG AGGTGAGGCG TGCTGCTCAG GCTGAGGCA TCCATGATGC 2400
 CATTATGCTT TCCCTGAAG GGTACAGGAC ACAGGTGGCG GAGCGGGAG TCAAGCTGAG 2460
 CCGCGGGAG AAGCAGCGCG TCGCATTCG CCGCACCATC CTCAAGGCTC CGGCATCAT 2520
 TCTGTGAGT GAGGCAACGT CAGCGCTGGA TACATCTAAT GAGAGGGCCA TCCAGGCTCT 2580
 75 TCGGCCAAA GTCTGTGCA ACCGCAACAC CATCGTAGT GCACACAGGC TCTCAACTGT 2640
 GGTCAATGCT GACGAGATCC TCGTCATCAA GGATGGCTGC ATCGTGAGA GGGGACGACA 2700
 CAGAGGCTCT TGTGCCGAG GTGGGTGTA TGTGACATG TGGCAGCTGC AGCAGGACA 2760
 GGAAGAAACC TCTGAAGACA CTAAGCCTCA GACCATGGAA CCGTGACAAA AGTTTGGCCA 2820
 CTTCCCTCTC AAGACTAAC CAGAAAGGGA ATAGATGTG TCTCTTCTC CTGGCTTATT 2880
 80 TCATCTGCTT CTGGGGTAT GTGCTAGCT ATGTAAGGCG AAGGGGACCT TTCCGAAAAA 2940
 CATCTTTTGG GGAATAAAA ATGTGGACTG TGAATAAAA AAAAAAAAAA AAA 2993

Seq ID NO: C119 DNA Sequence
 Nucleic Acid Accession #: NM_000676
 Coding sequence: 333..1331

| | | | | | | | |
|----|-------------|------------|------------|------------|------------|------------|------|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 5 | GGGCAATTTC | TTAGTTATCC | GCGGCCACCA | AGACGCGGCA | CGCGCCCTGG | ACCGGAGGGG | 60 |
| | CCCGCGCGCG | GCGCGAACTT | TGGGCTCGGG | CGAGTGGGTC | GTGCTCCGCC | CAGCCCGAGA | 120 |
| | CGGGCGGGCG | CGCGGGCCAA | TGGGTGCGGC | CTCTTGCGCG | CGGGGGGCCC | CGACCCGTGG | 180 |
| | GTCCCGGCCA | CCAGCGCCCC | AGCCCCGAGG | CTCAGAAGCG | GCAGGCGGAG | GC CGGTCCG | 240 |
| | GGCGCTATGG | CCATGCCCGG | CGGGTCTCAC | GC GGCTGCC | CTCGCCCGGC | GCGCCTTCGG | 300 |
| 10 | TAGGGGGCGC | CCGCGGCCCA | GCTGGCCCGG | CCATGCTGCT | GGAGACACAG | GACGCGCTGT | 360 |
| | ACGTGGCGCT | GGAGCTGGTC | ATCGCCGCGC | TTTGGGTGGC | GGGCAACGTG | CTGGTGTGCG | 420 |
| | CGCGGTGGG | CACGGCGAAC | ACTCTGCAGA | CGCCCAACCA | CTACTTCCTG | GTGTCCCTGG | 480 |
| | CTGGGGCCGA | CGTGGCCGTG | GGGCTCTTCG | CCATGCCCTT | TGCCATCACC | ATCAGCCTGG | 540 |
| | GCTTCTGCAC | TGACTTCTAC | GGCTGCTCTT | TCTTGCCCTG | CTTCTGCTCG | GTGCTCACGC | 600 |
| 15 | AGAGCTCCAT | CTTCAGCCCT | CTGGCCGTGG | CAGTGCACAG | ATACCTGGCC | ATCTGTGTCC | 660 |
| | CGCTCAGGTA | TAAAGTTTGG | GTCACGCGGA | CCCGAGCAAG | AGGGGTCAAT | GCTGTCTCTT | 720 |
| | GGGTCCCTGC | CTTGGSCATC | GGATTGACTC | CATTCTCTGG | GTGGAACAGT | AAAGACAGTG | 780 |
| | CCACCAACAA | CTGCACAGAA | CCCTGGGATG | GAACCAAGAA | TGAAAGCTGC | TGCCCTTGGA | 840 |
| | AGTGCTCTCT | TGAGAATGTG | GTCGCCATGA | GCTACATGGT | ATATTTCAT | TTCTTTGGGT | 900 |
| 20 | GTGTTCTGCC | CCACTGCTTT | ATAATGCTGG | TGATCTACAT | TAAGATCTTC | CTGGTGGCCT | 960 |
| | GCAAGCAGCT | TCAGCGCACT | GAGCTGATGG | ACCACTCGAG | GACCACTCTC | CAGCGGGAGA | 1020 |
| | TCCATGCAGC | CAAGTCACAG | GCCATGATTG | TGGGGATTTC | TGCCCTGTGC | TGGTTACCTG | 1080 |
| | TGCATGCTGT | TAACGTGTTC | ACTCTTTTTC | AGCCAGCTCA | GGGTAAAAAT | AAGCCCAAGT | 1140 |
| | GGGCAATGAA | TATGGCCATT | CTTCTGTCTC | ATGCCAATTC | AGTTGTCAAT | CCCAATTGCT | 1200 |
| 25 | ATGCTTACGC | GAACCGAGAC | TTCCGCTACA | CTTTTCACAA | AATTATCTCC | AGGTATCTCT | 1260 |
| | TCTGCCAAGC | AGATGTCAAG | AGTGGGAATG | GTGAGGCTCG | GGTACAGCCT | GCTCTCGGTG | 1320 |
| | TGGGCCCTATG | CTTAGGCTTC | TGSCCTCTTC | CAGGAGAGAA | TACAAATCCA | CAAGAAACAA | 1380 |
| | AGAGGACACG | GCTGTGTTTC | ATTGTGAAG | ATAGCTACAC | CTCACAGGGA | AATGGACTGC | 1440 |
| | CTCTCTTGAG | CACTTCCCTG | GAGCTACAC | GTATCTAGCT | AATATGTATG | TGTCAGTAGT | 1500 |
| 30 | AGGCTCCAAG | GATTGACAAA | TATATTTATG | ATCTATTACG | CTGCTTTTAC | TGTGTGGATT | 1560 |
| | ATGCCAACAG | CTTGAATGGA | TTCTAACAGA | CTCTTTTGTT | TTTAAAGTTC | TGCTCTGTTT | 1620 |
| | ATGTTGGAAA | ATTACTGAAA | CTATTTTACT | GTGAAACAGT | GTGAACTATT | ATAATGCAAA | 1680 |
| | TACTTTTAA | CTTAGAGGCA | ATGGAAAAAT | AAAAGTTGAC | TGTACTAAAA | ATG | 1733 |

Seq ID NO: C120 DNA Sequence
Nucleic Acid Accession #: NM_052932
Coding sequence: 217..786

| | | | | | | | |
|----|-------------|-------------|------------|-------------|-------------|------------|------|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 40 | CCCGCGCGCG | CCCGCGCGCG | CGGGCTGCGC | ACGCGAGCGC | CCCTCCAGGC | CCGCTCTCTG | 60 |
| | CGCCCTATTTC | GGTCAATTCG | GGGGCAAGCG | GCGGGAGGGG | AAACGTGCGC | GGCCGAAGGG | 120 |
| | GAAGCGGAGC | CGGCGCCGCG | TGCGCAGAGG | AGCGGCTCTC | GC CGCGGCCA | CCTGGGCTGG | 180 |
| | GAGCCCAAGC | GGCTGCCGCA | TCTTGCCCTC | GGAACAATGG | GACTCGGCGC | GCGAGGTGCT | 240 |
| 45 | TGGGCCGCGC | TGCTCTTGCG | GAGCGTGCAG | GTGCTGCGCG | TGCTGGGGGC | CGCCCATGAA | 300 |
| | AGCGCAGCCA | TGGCGGAGAC | TCTCCAACAT | GTGCTTCTCG | ACCATACAAA | TGAAACCTCC | 360 |
| | AACAGTACTG | TGAACCCACC | AACCTCAGTT | GCTCAGACT | CCAGTAATAC | AACGGTCACC | 420 |
| | ACCATGAAC | CTACAGCGGC | ATCTAATACA | ACAACCCAG | GGATGGTCTC | AACAAATATG | 480 |
| | ACTTCTACCA | CCTTAAAGTC | TACACCCAAA | ACAACAGTG | TTTCACAGAA | CACATCTCAG | 540 |
| 50 | ATATCAACAT | CCACAAATGAC | CGTAACCCAC | AATAGTTTCG | TGACATCTCG | TGCCTCATCA | 600 |
| | GTAAACATCA | CAACAACTAT | GCAATCTGAA | GCAAGAAAG | GATCAAAAT | TGATCTGGG | 660 |
| | AGCTTTGTTG | GTGGATTGTT | ATTAAAGCTG | GGAGTTTAT | CTATTCTTTA | CATTGGATGC | 720 |
| | AAATGTATT | ACTCAAGAAG | AGGCATTGCG | TATCGAACCA | TAGATGAACA | TGATGOCATC | 780 |
| | ATTTAAGGAA | ATCCATGGAC | CAAGGATGGA | ATACAGATTG | ATGCTGOCCT | ATCAATTAAT | 840 |
| 55 | TTTGGTTTAT | TATAGTTTGA | AAACAATATT | CTCTTTTGA | AAATAGTATA | AACAGGOCAT | 900 |
| | GCAATATATG | TACAGTGTAT | TACGTAAATA | TGTAAAGATT | CTTCAAGGTA | ACAAGGGTTT | 960 |
| | GGGTTTGTAA | ATAAACATCT | GGATCTTATA | GACCGTTCAT | ACAAATGGTT | TAGCAAGTTC | 1020 |
| | ATAGTAAGAC | AAACAAGTCC | TATCTTTTTT | TTTTTGCCCTG | GGGTGGGGGC | ATTGCTCACA | 1080 |
| | TATGACCAAT | AATTGAAGA | CGTCATCACT | GAAAGACAGA | ATGCCATCTG | GGCATACAAA | 1140 |
| 60 | TAAGAAATTT | GTACAGCCAC | TCCGATTTT | GGGTATCTTT | TGTAGCTCAC | ATAAAGAACT | 1200 |
| | TCAGTGCTTT | TCAGAGCTGG | ATATATCTTA | ATTACTAATG | CCACACAGAA | ATTATACAA | 1260 |
| | CAAACTAGAT | CTGAAGCATA | ATTTAAGAAA | AACATCAACA | TTTTTTGTGC | TTTAAACTGT | 1320 |
| | AGTAGTTGGT | CTAGAAACAA | AATACTCCAA | GAAAAGAAA | ATTTTCAAT | AAAACCCAAA | 1380 |
| | ATATAGCTT | TGCTTAGCCC | TGTTAGGGAT | CCATTGGAGC | ATTAGGAGC | ACATATTTTT | 1440 |
| 65 | ATTAACCTCT | TTTGAGCTTT | CAATGTTGAT | GTAATTTTTG | TTCTCTGTGT | AATTTAGGTA | 1500 |
| | AACCTCAGTG | TTTAACTATA | TAATGTTTTA | AAGACTTAGT | TGTCAGTATT | AAATAATCTT | 1560 |
| | GGCATATATG | GGAAAAAACC | TCCTAGAAGT | TAGATTATTT | GCTACTGTGA | GAATATTGTC | 1620 |
| | ACCACTGGAA | GTTACTTTAG | TTCAATTTAT | TTTAATTTTA | TATTTTGTGA | ATATTTTAAG | 1680 |
| | AACGTAGAG | CTGCTTTCAA | TATCTAGAAA | TTTTTAATTG | AGTGTAAACA | CACCTAATCT | 1740 |
| 70 | TAAGAAAAAG | AACCGCTTGT | ATGATTTTCA | AAAGAACATT | TAGATTCTTA | TAGAGTCAAA | 1800 |
| | ACTATAGCGT | AATGCTGTGT | TTATTAAGCC | AGGGATTGTG | GGACTTCCCC | CAGGCAACTA | 1860 |
| | AACCTGCAGG | ATGAAAATGC | TATATTTTCT | TTTATGCACT | GTGATATTA | CTCAGATTTC | 1920 |
| | GGGAAATGAC | ATTTTATATC | TAAACAAAC | ACCAAAATAT | TTTAGAATAA | ATTCTTAGAA | 1980 |
| | AGTTTGGAGA | GGAATTTTTA | GAGAGGACAT | TTCTCTCTTC | CTGATTGGGA | TATTCCTTCA | 2040 |
| 75 | AATCCCTCCT | CTTACTCCAT | GCTGAAGGAG | AAGTACTCTC | AGATGCATTA | TGTTAATGGA | 2100 |
| | GAGAAAAAGC | ACAGTATTGT | AGAGACACCA | ATATTAGCTA | ATGTATTTTG | GAGTGTTTTC | 2160 |
| | CATTTTACAG | TTTATATTC | AGCACTCAAA | ACTCAGGCTC | AAGTTTAAAC | AAAGAGGTA | 2220 |
| | TGTAGTCACA | GTAATATCTA | AGATGGCATT | TCTATCTCAG | AGGCCCCAAG | TGAATCACAC | 2280 |
| | CAGTTTCTGA | AGGTCTTAAA | AATAGCTCAG | ATGTCCTAAT | GAACATGCAC | CTACATTTAA | 2340 |
| 80 | TAGGAGTACA | ATAAACTCTG | TGTCAGCTTT | TGTTTTACAG | AGAACGCTAG | ATATTAAGAA | 2400 |
| | TTTTGAATAG | GATCATTTCT | ACTTGCTGTG | CATTTTAAAC | AATAATCTGA | TGAATATAGA | 2460 |
| | AAAAAATGAT | CCAAAATATG | GATATGATTG | GATGTATGTA | ACACATACAT | GGAGTAAGGA | 2520 |
| | GGAAATTTTC | TGAAAAATAC | ATTTAGATTA | GTATTAGTTG | AAGGAGAGGT | GGGCTGATGG | 2580 |
| | CTGAGTTGTA | TGTTACTAAC | TTGGCCCTGA | CTGGTTGTGC | AACCATTTGCT | TCATTTCTTT | 2640 |
| | GCAAAATGTA | GTTAAGATAT | ACTTTATTCT | AATGAAGGCC | TTTTAAATTT | GTCCACTGCA | 2700 |

| | | | | | | | |
|--|------------|------------|------------|------------|------------|-------------|------|
| | TTCTTGGTAT | TTCACTACTI | CAAGTCAGTC | AGAACTTGGT | AGACCGACCT | GAAGTTTCTT | 2760 |
| | TTTGAATACT | TGTTTCTTTA | GCACTTTGA | GATAGAAAAA | CCACTTTTTA | AGTCACTAAGT | 2820 |
| | CATCATTTGC | TCTGAAAGTT | TCTCTGCAAT | TGGGTTTGAA | TGAGTTTAGT | TAGTCTCTTT | 2880 |
| | TCTCTGATG | TAGTAGTAT | AATTTGTTAC | TTTCAAAATC | CCGTGCTTTG | AATGTAGGTT | 2940 |
| | TTTITGTGT | TGTTTCTAT | AAAAATTGAG | GGAAATGGTT | ATGCAAAAAA | ATATTTTGCT | 3000 |
| | TTGGACATA | TTTCTTAAGC | ATAAAAAATC | GCTCAGTTT | GCTTGCAATC | CTTGAAGAA | 3060 |
| | TATTTATTCT | AGAGTCAAAA | CAACCAATCC | AGATGTATA | GTACATAGCC | GAAGCCAAAT | 3120 |
| | TATAAAATCT | CTTGAATAAT | CATGAAAGCC | ATAAATTCAA | ATACAGATA | ACAGAGTTGG | 3180 |
| | CAGTATATTA | TAGTGATAAT | TTTGTATTTT | CAAAAAAATA | AAAGTTAAAC | TCTTCTTTTC | 3240 |
| | TTTATTATT | AATGACCAGC | TTTTGGTATT | TCAATGTTAC | CAAGTCTCAT | TTTTAGATAA | 3300 |
| | AATTGTTCTC | CTTCTAAAAA | AAAAAAAAAA | AAAAAAAAAA | | | 3338 |

15 Seq ID NO: C121 DNA Sequence
Nucleic Acid Accession #: NM_004195
Coding sequence: 1..726

| | 1 | 11 | 21 | 31 | 41 | 51 | |
|----|------------|-------------|------------|------------|-------------|------------|-----|
| 20 | ATGTCACAGC | ACGCGGCAT | GGGCGCTTT | CGGGCCCTGT | GCGGCCCTGG | GTCTGTGTGC | 60 |
| | CGCTCATGCC | TGGGTCAAGC | CCCCACGCG | GGTCCCGGAT | CGCGCCCTGG | GGCCCTCTCG | 120 |
| | CTTGGGACGC | GACCGGACGC | GGCTGCTGC | CGGTCTCAAC | CGACGCGCTG | CTCGCGCGAT | 180 |
| | TACCGGAGCG | AGGAGTCTGT | TTCGAGTATG | GACTGCATGT | GTGTCCAGCC | TGAATTCAC | 240 |
| | TGCGCGAGCC | CTTGTCTGAC | GACCTCGCCG | CACCACTCCG | CTCTCCCCAG | CAGGCGGGTA | 300 |
| 25 | CAGTCCAGG | GGAAATTCAG | TTTGGCTTC | CAGTGTATCG | ACTGTGCTTC | GCGGAGCTTC | 360 |
| | TCCGGCGGCC | ACGAAGGCCA | CTGCAAACTC | TGGACAGACT | GCCACCAAGT | CGGGTTTCTC | 420 |
| | ACTGTGTTCC | TCTGGGAACAA | GACCCACAAC | CTGTGTGCG | TCCACGGTTC | CCCGCGGGTA | 480 |
| | GAGCCGCTTG | GGTGGCTGAC | GCTCGTCTCT | CTGCGCGTGG | CGCGCTGCGT | CCTCCTCTTG | 540 |
| | ACCTGGSCCC | AGCTTGGACT | GCATCTGCG | GACGTGAGGA | GTCACTGTCAT | GTGGCGCCCG | 600 |
| 30 | GAGACCCAGC | TGCTGCTGGA | GGTGCCGCCG | TCAACCGAAG | AACGCCAGAG | TCTGCACATC | 660 |
| | CCGAGGGAAG | AGCGGGGCGA | GCGATCGGCA | GAGGAGAAGG | GGCGGTCTGG | AGACATCTGG | 720 |
| | GTGTGA | | | | | | 726 |

35 Seq ID NO: C122 DNA Sequence
Nucleic Acid Accession #: AK091896.1
Coding sequence: 28..1572

| | 1 | 11 | 21 | 31 | 41 | 51 | |
|----|-------------|-------------|-------------|-------------|--------------|-------------|------|
| 40 | AGATCCGCGA | GCCTGTGAGC | CTGGGCGCATG | GGCTGCGACG | CGCGGTGTGTC | GGGGCTGTCTC | 60 |
| | CGCGCCGACC | TGACGACCCAC | GCCTACCTTAC | TGGAGCGCTTC | TCCTTCAGCCTT | CGGCCCTGTGC | 120 |
| | ATCGCCCTTCC | TGGGGGCCAC | CTGTCTTGGAC | CTGGCTCTCTC | AGACGCGACAC | CTCGCTTGCCT | 180 |
| | CAGATCTCCT | GGGTCTTCTT | CTCGCAGCAG | CTCTGCTCTCC | TGCTGGGCGAG | CGCCCTGGGG | 240 |
| | GGCGCTCTCA | AAAGGCTTCT | GGCCGACCTAC | CTATGGGCCCC | TGTTTACCTCT | CTCTCTTGGCC | 300 |
| 45 | ATCTCTCTTC | TGTTTTCCTT | CATCCCTCTC | TGCGCGGACG | TGAAGGTGCT | GGGCTCAGTC | 360 |
| | ATGCGCTGTC | GGGCTTGGC | CATGGGCTCT | ATCGACACCG | TGGCCACATC | CGACCTTGGTA | 420 |
| | AGGATGTACC | AGAGAACTAC | GGCGCTCTTC | TCACAGGAGT | TCTATTCTT | GTGGGGCTTT | 480 |
| | GGTGTCTCT | TGCGCCOCTT | TATTTGTGAC | CTTTTCTCTGT | CTGAGGCTTAC | CTGCTTGCCT | 540 |
| | GCCATATGCA | CGCCCAACAC | CACCTCCOGA | GGCCACTGT | TCCATTGTCTT | CAGGGTGTCT | 600 |
| 50 | GGCGCGCAC | ACGTAGATGC | CAGAGCTTGG | TCACACCGAC | GCTTCCAGG | GCTGACTTCA | 660 |
| | AAGAGCGGGG | CAGGAGCCCG | AGTGTCTCAT | GCCTCTCTGA | TCATGTGCTAC | CATGAGCTTT | 720 |
| | CCAGTGCCCA | TGCTGTGTCT | GATGCTGTCT | TCCAGGAGAG | TGGGTGCTGAC | CTGCTGTCTC | 780 |
| | CAGAGGAGGC | CCCTGCTCTT | GTCTGCTGAT | GAGCTTGTCT | TGGAGACACA | CGCTCTCTAG | 840 |
| | AAGGAAGATG | CTCTCTCAT | GGCCCCAAGT | TTTCAGTCAC | CTGAGGGCA | TGAGGAGCTG | 900 |
| 55 | TTGACGTCT | GCCTAAAGTA | GAACTCTGAC | GGAGCCCTTT | ATTCTCTCTT | TGCCATCCAC | 960 |
| | ATCACGGGCG | CCCTGTGATC | GTTCATGAG | GATGGGTGTA | CGGGTGCTTA | TTCCGCTCTC | 1020 |
| | GTGTACAGCT | ATGCTGTGGA | GAGGCCCTTG | TCTGTGGGAC | ACAAGGTGGC | TGCTCACTCT | 1080 |
| | CCGAGCTCTT | TCGGGGCTTT | CTGACACAT | GGCGGGCTCC | TTCTCAATTC | CATATCTCTA | 1140 |
| 60 | AGATGGAAGT | CGCGCAACTT | GGTTTCTATC | AACGTGGTTC | GCGTGTGGTT | GACGCTTCTG | 1200 |
| | GTGTGCTCTA | TTTTCTCTTA | CACCTGTCTC | TCTCTGTTTC | TGGGGAGCGC | AAGCCCTGGG | 1260 |
| | CCTGTTCTCA | CGGACACTCT | CCGACGACTC | CGGCTCTAG | CGGAGGACTC | CTGTCACTAC | 1320 |
| | AAAGGCTGTG | CAACCAACAT | GCCTGTGACA | GGGGCAGGAG | TGGCGGAGAT | GGTGTGCGAG | 1380 |
| | ATGCTGGGTG | GTTCGATATC | CCAGGCTCTC | CGGACGATTA | GTTTTCTGTG | CTGTGGCGTG | 1440 |
| 65 | ATCTTGTGTT | GTCTGGCTTT | TACCTTCTAT | ATCTTGTCTC | TGTTTTTCCA | CAGGATGCAC | 1500 |
| | CTCGAGCTCC | CATCAGTCTC | TACCCAGAC | AGATCAATTC | GAATGCAAAA | CTCTGAGTGC | 1560 |
| | TACCAAGAGT | AAAACCTGGT | GAGAAGGCA | AGAGAGACT | TTGAGCTCTT | TGATCACCGA | 1620 |
| | CACGACCTAC | CTGTTTCHGA | AACTGTGGTG | GTGTGGGAGG | CGCTCTCTCA | ATGGCTATTC | 1680 |
| | AAGTCTCTCT | CCTATAAATC | TGSTTGGGTA | GAGGAATTA | AATTGTGCTC | TGTTACTCTG | 1740 |
| | TCAAAATCAT | TAGAAGTTTA | CTCTGGCTCT | CAGGATATCT | TCTTCTCTTG | TCAGACTGT | 1800 |
| 70 | TGTTAAGAGC | TGCTCGAGTA | CCAGAGTGG | AGAGAGAGAG | ACAGCGCGCG | GCTTCTACTTC | 1860 |
| | ATTGTTCACT | TATCTGATCT | ACCATATCTG | GGGTTTGAG | TCATCTCTCA | TGAAGTTTG | 1920 |
| | TAAATATAGG | TGAAATGTCA | AAAGCTCCAT | GCATCTGCT | ATATGTAGAT | ATATTTCAAT | 1980 |
| | TTAAGCAAAA | TAGACTTGAA | GTATTCTGCT | GCGATGCTCA | AAGATTTTTC | GTGCTTTTCA | 2040 |
| | CTTAATATGC | CAAAGTCTCT | TAAATTCCTG | CTGCAGATAT | CAATAGCTTA | TCTATATTCT | 2100 |
| 75 | CAACACCCAA | AAGGAAAAGT | TGAATCTTGC | TCTCTTGTG | ATACTAAGTT | AGTGGTATGC | 2160 |
| | TAAGCTGGCT | CATACCAACT | TAGAAAAGAT | GATTGTAAAA | TTTTTCAATT | CAGCTAGTGT | 2220 |
| | TATTTAAATG | AGGCTAATAT | AAAAATCAAA | CATATCAAA | TTATATATTA | ATCAATTACA | 2280 |
| | TTTAAAACAA | AGGCAATTTT | TCTTCAAGAG | ATATCACTTC | CT | | 2340 |

80 Seq ID NO: C123 DNA Sequence
Nucleic Acid Accession #: NM_002203.2
Coding sequence: 43..3588

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|---|----|----|----|----|----|
| 1 | 11 | 21 | 31 | 41 | 51 |
| | | | | | |

| | | | | | | | |
|----|-------------|-------------|-------------|-------------|-------------|-------------|------|
| | CTGCAAAACC | AGCGCACTA | CGGTCCCCG | GTCAGACCCA | GGATGGGGCC | AGAACGGACA | 60 |
| | GGGGCCGCGC | CGCTGCCGCT | GCTGCTGGT | TTAGCGCTCA | GTCAGGCGAT | TTTAAATTGT | 120 |
| | TGTTTGGCCT | ACAAATGTGG | TCTCCCAGAA | GCAAAATAT | TTTCCGCTCC | TTCAAGTGAA | 180 |
| 5 | CASTTTGGGT | ATGCAGTGCA | GCAGTTTATA | AATCCAAAAG | GCAACTGGTT | ACTGGTTGGT | 240 |
| | TCACCCCTGA | GTGGCTTTCC | TGAGAACCGA | ATGGGAGATG | TGTATAATAT | TCCGTGTGAC | 300 |
| | CTATCCACTG | CCAATGTGGA | AAACTAAAT | TTGCAAACTT | CAACAAGCAT | TCCAAATGTT | 360 |
| | ACTGAGATGA | AAACCAACAT | GAGCCTCGGC | TTGATCCTCA | CCAGGAACAT | GGGAACCTGA | 420 |
| | GGTTTCTCA | CATGTGGTCC | TCTGTGGGCA | CAGCAATGTG | GGAAATCAGTA | TTACACAACG | 480 |
| 10 | GGTGTGTGTT | CTGACATCAG | TCCTGATTTT | CAGCTCTCAG | CCAGCTTCTC | ACCTGCAACT | 540 |
| | CAGCCCTGCC | CTTCCCTCAT | AGATGTTGTG | GTGTGTGTG | ATGAATCAAA | TAGTATTTAT | 600 |
| | CCTTGGGATG | CAGTAAGAA | TTTTTTGGAA | AAATTTGTAC | AAGGCTTTGA | TATAGGCCCT | 660 |
| | ACAAAGACAC | AGGTGGGGTT | AATTCAGTAT | GCCAATAATC | CAAGAGTTGT | GTTTAACTTG | 720 |
| | AACACATATA | AAACCAAGA | AGAAATGAT | GTAGCAACAT | CCCAGACATC | CCAATATGGT | 780 |
| 15 | GGGACCTCA | CAAAACATTT | CGGAGCAATT | CAAIATGCAA | GAAAATATGC | CTATTGAGCA | 840 |
| | GCCTCTGGTG | GGGACGAGG | TGCTACGAAA | GTAAATGTTAG | TTGTAACTGA | CGGTGAATCA | 900 |
| | CATGATGTT | CAATGTGAA | AGCTGTGATT | GATCAATGCA | ACCATGACAA | TATACTGAGG | 960 |
| | TTTGGCATAG | CAGTCTCTGG | GTACTTAAAC | AGAAACGCC | TTGATACTTA | AAATTTAATA | 1020 |
| | AAAGAAATA | AAGCGATGCG | TAGTATTCCA | ACAGAAAGAT | ACTTTTTCAC | TGTGTCTGAT | 1080 |
| 20 | GAAGCAGCT | TACTAGAAAA | GGCTGGGACA | TTAGGAGAAC | AAATTTTCAG | CATTGAGGAT | 1140 |
| | ACTGTCTAAG | GAGGAGACAA | CTTTCAGATG | GAAATGTAC | AAGTGGGATT | CAGTGCAGAT | 1200 |
| | TACTCTCTC | AAAATGATAT | TCIGATGCTG | GGTGCAGTGG | GAGCTTTTGG | CTGGAGTGGG | 1260 |
| | ACCATGTGTC | AGAAGACATC | TCATGGCCAT | TTGATCTTTC | CTAAACAAGC | CTTTGACCAA | 1320 |
| | ATTCTGCGAG | ACAGAAATCA | CAGTTCATAT | TTAGGTTACT | CTGTGGCTGC | AAATTTCTACT | 1380 |
| 25 | GGAGAAAGCA | CTCAGTTGTT | TGCTGGTGGT | CCTCGGGCAA | ATTATACCGG | CCAGATAGTG | 1440 |
| | CTATATAGTG | TGAATGAGAA | TGGCAATATC | ACGGTTATTC | AGGCTCACCG | AGGTGACCCG | 1500 |
| | ATTGGCTCCT | ATTTTGGTAG | TGTGCTGTGT | TCAGTTGATG | TGGATAAAGA | CACCATTACA | 1560 |
| | GACGTGCTCT | TGGTAGGTGC | ACCAATGTAC | ATGAGTGACC | TAAAGAAAGA | GGAGGAGAGA | 1620 |
| | GTCTACCTGT | TTACTATCAA | AAAGGGCATT | TTGGGTGACG | ACCAATTTCT | TGAAGGCCCT | 1680 |
| 30 | GAGGCGATT | AAAACACTCG | ATTGGTTTCA | GCAATTGCGA | CTCTTTTCAG | CATCAACATG | 1740 |
| | GATGCTTTA | ATGATGTGAT | TGTTGGTTCA | CCACTAGAAA | ATCAGAAATC | TGGAGCTGTA | 1800 |
| | TACATTTACA | ATGGTCATCA | GGGCATATC | CGCACAAAGT | ATTCCAGAAA | AACTTTGGGA | 1860 |
| | TCCGATGGAG | CCTTTAGGAG | CCATCTCCAG | TACTTTGGGA | GGTCCITGGA | TGGCTATGGA | 1920 |
| | GATTTAAATG | GGGATTCATC | CACCGATGTG | TCTATTGGTG | CCTTTGGACA | AGTGGTTCAA | 1980 |
| 35 | CTCTGGTCA | AAAGATTTGC | TGATGTAGCT | ATAGAAAGCT | CAITCACAAC | AGAAAAAATC | 2040 |
| | ACTTTGGTCA | ACAAGATGTC | TCAGATAATT | CTCAAACTCT | GCITCAGTGC | AAAGTTTACA | 2100 |
| | CCTACTAAGC | AAACCAATCA | AGTGCCCAT | GTATATAACA | TCACACTTGA | TGCAGATGGA | 2160 |
| | TTTTCATCCA | GAGTAACCTC | CAGGGGGTTA | TTTAAAGAAA | ACAATGAAAG | GTCCCTGCAG | 2220 |
| | ANGAATATG | TAGTAATACA | AGSCAGAGAT | TGCCCCGAGC | ACATCATTTA | TATACAGGAG | 2280 |
| 40 | CCCTCIGATT | TTGTCAACTC | TTTGGATTG | CGTGTGGACA | TCAGTCTGGA | AAACCCCTGG | 2340 |
| | ACTAGCCCTG | CCCTTGAAGC | CTATTCTGAG | ACTGCCAAGG | TCTTCAGTAT | TCTTTCCAC | 2400 |
| | AAAGACTGTG | GTAGGAGTGG | ACTTTGCATT | TCTGATCTAG | TCCTAGATGT | CCGACAAATA | 2460 |
| | CCAGCTGTCT | AGAACCAACC | CTTTATGTCT | AGCAACCAAA | ACAAAAGGTT | AACATTTTCA | 2520 |
| | GTAACACTGA | AAAATAAAG | GGAAAGTGCA | TACACACATG | GAATTTGTGT | TGATTTTTC | 2580 |
| 45 | GAACACTTGT | TTTTCGATC | ATTCTCCCTA | CCGGTTGATG | GGACAGAAAT | AACATGCCAG | 2640 |
| | GTGGCTGCA | CTCAGAGTCT | TGTTGCCCTG | GATGTAGGCT | ACCTCGCTTT | AAAGAGAGAA | 2700 |
| | CAACAGGTGA | CTTTTACTAT | TAACTTTGAC | TTCAATCTTC | AAAACCTTCA | GAATCAGGCG | 2760 |
| | TCTCTCAGTT | TCCAGGCTTT | AAGTGAAGGC | CAAGAAAGAA | ACAAGGCTGA | TAAATTTGCT | 2820 |
| | AACCTCAAAA | TTCTCTCTCT | GTATGATGCT | GAATTTCACT | TAACAAGATC | TACCAACATA | 2880 |
| 50 | AATTTTATG | AAATCTCTTC | GGATGGGAAT | GTTCCTTCAA | TGCTGCACAG | TTTGTGAAGT | 2940 |
| | GTGTGTCGAA | AATTCATCTT | CTCCCTGAAG | GTAAACAACG | GAAGTGTTC | AGTAAGCATG | 3000 |
| | GCAACTGTAA | TCAATCCAT | CCCTCAGTAT | ACCAAGAGAA | AGAACCCACT | GATGTACCTA | 3060 |
| | ACTGGGGTGC | AAACGAGCAA | GGCTGGTGAC | ATCAGTTGTA | ATGCAGATAT | CAATCCACTG | 3120 |
| | AAAATAGGAC | AAACATCTTC | TTCTGTATCT | TTCAAAGATG | AAAATTTTCA | GCACACCAAA | 3180 |
| 55 | GAATGAACT | GCAGAACCTG | TTCTGTAGT | AATGTTACCT | GCTGGTTGAA | AGAGCTTCAC | 3240 |
| | ATGAAGAGAG | AATACCTTGT | TAAATGAGCT | ACCAAGATTT | GGAAAGGAGC | TTTCGCATCA | 3300 |
| | TCACAGTTCC | AGACAGTACA | GCTAACGGCA | GCTGCAGAAA | TCACACCTA | TAACTCTGAG | 3360 |
| | ATATATGTGA | TTGAAGATAA | CAGTGTACG | ATTCCOCTGA | TGAATATGAA | ACCTGTATGAG | 3420 |
| | AAAGCCGAG | TACCAACAGG | AGTTATAATA | GGAAAGTATA | TTGCTGGAAT | CCCTTTGCTG | 3480 |
| 60 | TTAGCTCTGG | TTGCAATTTT | ATGGAAGCTC | GGCTTCTTCA | AAAGAAAATA | TGAAAAGATG | 3540 |
| | ACCAAAATC | CAGATGAGAT | TGATGAGACC | ACAGAGCTCA | GTAGCTBAAC | CAGCAGACCT | 3600 |
| | ACCTGCAGTG | GGAAACCGCA | GCATCCGAGC | CAGGTTTTC | TGTTTGGTGT | CATGGATTTC | 3660 |
| | TTTTTAAATC | CCATATTTTT | TTTATCATGT | CGTAGGTAAA | CTAACCTGGT | ATTTTAAAGG | 3720 |
| | AAAACCTGCAG | GTCAAGTTTG | ATGAAGAAAT | TGTGGGGGGT | GGGGGAGGTG | CGGGGGGCG | 3780 |
| 65 | GTAGGGAAT | AATAGGGAAA | ATACCTATTT | TATATGATGG | GGGAAAAAAA | GTAATCTTTA | 3840 |
| | AACTGGCTGG | CCCAGAGTTT | ACATTTCTAAT | TTGCATTGTG | TCAGAAACAT | GAAATGCTTC | 3900 |
| | CAAGCATGAC | AACITTTAAA | GAAAAATATG | ATACTCTCAG | ATTTTAAAGG | GGAAAACTGT | 3960 |
| | TCTCTTTAAA | ATATTGTGCT | TTAAACAGCA | ACTACAGAG | TGGAAGTGCT | TGATATGTAA | 4020 |
| | GTACTTCCAC | TTGTGTATAT | TTTAATGAAT | ATTGATGTTA | ACAAGAGGGG | AAACCAAAAC | 4080 |
| 70 | ACAGGTTTTT | TCAATTTATG | CTGCTCATCC | AAAGTTGCCA | CAGATGATAC | TTCCAAAGTGA | 4140 |
| | TAAATTTATT | TATATACATG | GTAAATTTTG | TTGTTGGTTC | CTTTTATACC | ACGGCTGCC | 4200 |
| | CTTCCACACC | CCATCTTGCT | CTAATGATCA | AAACATGCTT | GRATAACTGA | GCITAGAGTA | 4260 |
| | TACCTCCTAT | ATGTCCATTT | AAGTTAGGAG | AGGGGGCGAT | ATAGAGACTA | AGGCACAAAA | 4320 |
| | TTTTGTTTTA | AACCTCAGAT | ATAACATTTA | TGTAAATATC | CATCTGCTAG | AGGCCCATCC | 4380 |
| 75 | TGTGCCAGAG | GAGGAAATTT | GAGGAAATTT | CCCTTCTCTT | TTAGGAGGCA | CAACAGTTCT | 4440 |
| | CTTCTAGGAT | TTGTTTGGCT | GACTGGCAGT | AACCTAGTGA | ATTTTGTAAA | GATGAGTAAT | 4500 |
| | TTCTTTGGCA | ACCTTCTCTC | TCCTTACTG | AACCACTCTC | CCACCTCTCT | GTGGTACCAT | 4560 |
| | TATTATAGAA | GGCTCTTACA | GGCTGACTTT | CTCTCCAGCG | GTCCAAAGTT | ATCCCTCTCT | 4620 |
| | TTACCCCTCA | TCCAAAGTTT | CCACTCCTTC | AGGACAGCTG | CTGTGCATTA | GATATTAGGG | 4680 |
| 80 | GGGAAAGTCA | TCAGTTTAAAT | TTACACACTT | GCATGAATTA | CTGTATATAA | ACTCCTTAAC | 4740 |
| | TTACGGGAGC | TATTTTCAAT | TAGTGCTAAA | CAAGTAAGAA | AAATAAGCTA | GAGTGAATTT | 4800 |
| | CTAAATGTTG | GAAATGTTATG | GGAATGTTATG | AATGTAAAGT | AAACACTCT | CAGGATTTCA | 4860 |
| | CCAGAAATTA | CAGATGAGGC | ACTGGAAACC | ACCACCAAT | TAGCAGGTGC | ACCTTCTGTG | 4920 |
| | GCTGTCTTGT | TTCTGAAGTA | CTTTTCTTCT | CACAAGAGTG | AAATTTGACT | AGGCAAGTTT | 4980 |
| | GTTCAAAAGG | TAGATCTCTG | GATGATTTGG | TCAGATTGGG | ATAGAGCCCA | GCAATCTGCA | 5040 |

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 ATTTCTACTT TTTCACCTT ATTTCTCTG TTCTGAGCC CCCACATCT CTAGGAGAAA 5160
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 Nucleic Acid Accession #: NM_031460
 Coding sequence: 103..1101

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 CGGGCGCAGG ACTCCAGCG CAGCTTCCAG CCGACAAAGT GGGAGCTGTT GCAGAACTTC 300
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 ATGGCTGCCC GCTCTTCTG CATCTTCTT GCGCTTGTGG GGATCCCACT CAACCTGTG 540
 GTGCTCAACC GACTGGGGCA TCTCATGCG CAGGGAGTAA ACCACTGGGC CAGCAGGCTG 600
 GGGGGCACCT GGCAGGATCC TGACAAGGCG CCGTGGCTGG CCGGCTCTGG CGCCTCCTC 660
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 TCGGGCTTCC TGCTCTTCTT CTGTGTGCGA CCGTGTCTCT TCTCCCATAT GAGGGGCTGG 720
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 TCCCAAGCT GGAGAGAGGG ACCTGACCGG GAGCCAGAGT CCCACTCCCC ACAGCAAGGA 1020
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 GGCTGTGGCA AGGACAGCTA GTTATACTCC ATTCTTTGGT CGTGTCTCTC GGTAGCAAGA 1140
 CCGCTGATT TAAGCTTTGC ACATGTCCAC CCAAACTAAA GACTACATTT TCCATCCACC 1200
 CTAGAGGCTG GGTGACGCTA TATGATTAAT TCTGCCAAT AGGGTATACA GAGACATGTC 1260
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 Coding sequence: 309..1295

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 1 11 21 31 41 51
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 50
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 TGCCAGAACCA TTGCAAGGCA CAGTTTCAGG CACAGAACTG ACTGGCAGCA GGGGCTGCTC 360
 CAGGAGTGGG AATTGTCTCC AGCACTTCAC GCACTGCAAG CGAGGCACTT GCTAACTCTT 420
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 GGATAACAG ACCCTGTGCA GAAGAACCAT GGCTTGGGAA GCGGGAGTTT AGGCTGAGGA 480
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 ACCGCGAGAA CTTCAAGCAA CTGTGCTGTC CACCTGTGTA TTCGGCGGTG CTGGCGGCTG 660
 GCGTGCCTCT GAACATCTGT GTCAATTACC AGATCTGACG GTCCCGCGCG GCGCTGACCC 720
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 CCTGTCTCAT CTACAACTAT GCCCAAGGTG ATCACTGGCC CTTTGGGAC TTGCTCTGCC 840
 GCGTGGTCCG CTCTCTCTTC TATGCCAACC TGCAAGGACG CATCTCTTTC CTCACCTGCA 900
 TCACTTCCA GCGCTACCTG GGCATCTGCC ACCGCTGGC CCGTGTGGCT GCGCGTGAAC ACCCATGCC 1020
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 TGCCACAGC CATCTTGGCT GGCACAGGCA TCCAGCGTAA CCGCACTGTC TGCTATGACC 1140
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 TGGCGGTGGT GGTGGCTGCT GCGTTTGCCA TCAGCTTCTT GCGTTTTCAC ATCACCAGA 1380
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 ATTTCTTCA CCGCTTCTCT GCGCCAGACC CTGTGGGCT GAGATGAGC AGACCTGGGC 1800
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 ACAAAATAC AGTGTGAGCT GTACTGTCAA AA 1832

80
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 Nucleic Acid Accession #: NM_007197
 Coding sequence: 18..1763

1 11 21 31 41 51

Seq ID NO: C127 DNA Sequence
Nucleic Acid Accession #: NM_005761.1
Coding sequence: 250..4956

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| | CTGCGCGAGC | GAGCGCTGCG | CGCGCGCGCC | TCCCGCGCTC | CTTTCCTGGG | CGAGCTGCGG | 120 |
| | GGATGGCGCG | GCGCGCGGAG | CCCGAGCGCG | CGCAGGACCT | CGCGCGCGCG | CGCGCGCGCT | 180 |
| | CTCCGTTTGC | GCGCGCCTGA | GCGCGCGTGG | CGCGCGCGCG | CCCTGCGCGG | GCGCGCGCCC | 240 |
| | CCGAGCCCCA | TCGAGGCTTC | CCCGAGGAGG | GCGCGCGCCT | CGCCCCCGCG | CCCGCGCAGG | 300 |
| 60 | CCACTGCGCG | TGCTGGCTCA | TCCTGTGGCA | CTGGCGGCTC | CGCGCGGGGG | CGCGAGCAGG | 360 |
| | CCCGTGTGGC | GGTGGGAGCA | AGCCATCGGA | GCCATGCGGG | CGAGCTCAGG | GAGCGCGCTG | 420 |
| | TTTGTGGCGA | GCGCGAGCTG | CTGAGCAGCA | CTGAGCTACA | CGCTGGAGCA | CGACCTCTGG | 480 |
| | CGCTCTGTAC | GGGACCAAGT | GGGCACCTGC | ACAGAGCGCG | TCTCGCTGGC | GGCCCCCGCG | 540 |
| 65 | CGGCGCGCGG | CGCGGAGCGG | CTTCAGCAGG | CTGCTGTGCG | CTTACCGCGA | GGGGGCGCGC | 600 |
| | GGCTCTGGCG | GGCTCTGTCT | CACCGCGTGG | ACCTTTCAGC | GGGGCGCGTG | CAGAGTTCGG | 660 |
| | CCCTCTGGCA | ACCTGAGCGG | CACCTCCCTG | CGCACCGGCA | CGGAGTGGGT | GTCTGTCGAC | 720 |
| | CGCGAGGCTG | CGAGCGCGGG | CGTGGGTGAC | CGCGCGGGCC | CGAGACAGCG | CTGTGATCTG | 780 |
| | GGGCTGGCGG | CCACCTACGT | CGTGCCTGAG | CGCGAGACGG | CGAGCGCGTG | CACACCCGCG | 840 |
| 70 | GCATTCGACG | ACGACACTGC | CATGCGGCTC | GAGGACACGG | AGGGGCGCGG | CGTGGCCACG | 900 |
| | CAGGAGCTGG | GGGCGCTCAA | CTGTGTGGAG | GGGCGGGGCA | CGCTGCACTT | CGTGGAGCGC | 960 |
| | TTTCTTGGGA | ACCGCAGCAT | CTACTTCCCT | TACTACCTCT | ACACTATACG | GAGCGCGGCT | 1020 |
| | CGCACCGCGT | GGCGCGCATG | GGCGCGCATG | GGCGAGAGCA | CGAGGTGTCT | GTTCGAGGGC | 1080 |
| | CAGGCACTCC | TGCAGTTCGG | CGCGCGCCAC | CCCGACCGCC | CGCGCGCTGT | CTCTCTCTCT | 1140 |
| 75 | AGCCTAGTGG | AGGCCCTTGA | CGTCTGGGCG | GGAGTGTCTA | CGCGCGCGCG | TGGAGAGGGC | 1200 |
| | CAGGAGCGGC | GCTCTCCCGC | CACCCACGGG | CTCTGCTCTT | TCGAGATGAG | TGAGATTCAG | 1260 |
| | CGCGCGCGCA | AGAGGGTTCG | CTGGGACTTC | AAGACGGCGG | AGAGCCACTG | CACAGGAGGG | 1320 |
| | GATCAACTCG | AAGAGGTCAC | ACCAATTCGA | TATCTACTCT | TGATCGATTG | CGACTGACGA | 1380 |
| | TCGGTTTATG | GCACCGTGGT | AATGACACAG | ACTGTTTATG | TCCTGGGGAG | TGGAGATGCT | 1440 |
| | CAGTTACTACT | AGGTTATCTT | TGGTGAAGAT | TGACTTCAAA | ATTGTCCAGA | GGTATCTCTG | 1500 |
| 80 | GAAATTAAGT | TAGACGACCC | TGTTTCTTAC | AAACTCGTTC | CTGATCCTGT | GAGGAATATC | 1560 |
| | TACATTTATC | TAAACAGCTG | GAAAGAGGCG | AGGAGAACTC | GCTGTGCGAA | CTGCAATATA | 1620 |
| | CATATTAATCT | GTTCGGAGTG | TTTAAACAGC | ACAGACGCTC | ACTGGTCTGT | GTGCAATTGA | 1680 |
| | CTACAAAGGT | CGACTTTTCA | AGGAGATGTG | GTACATTGAG | AGAACTTAGA | AAACTGGGCT | 1740 |
| | GATATTTCTG | TAGACGACAA | AAAGTCCCTT | AAATTCGAGA | TAAITTCGAG | CAGTAAAGAA | 1800 |

| | | | | | | | |
|----|------------|-------------|------------|-------------|------------|------------|------|
| 5 | AAGACTACAG | TGACTATGCT | GGGAAGCTTC | TCTCCAGAC | ACTCAAGTG | CATGGTGAAG | 1860 |
| | AATGTGGACT | CTAGCAGGGA | GCTCTGCCAG | AATAAAAGTC | AGCCCAACCG | GACCTGCACC | 1920 |
| | TGTAGCATCC | CAACAGAGC | AAOCTACAAA | GAATGTTTCAG | TGTCTCAAGT | GATGTTCTCC | 1980 |
| | TTGGGTTCTT | GGAAATTTATC | AGACAGATTC | AACITTACCA | ACTGCTCATC | ATTAAAGAA | 2040 |
| | TGCCAGCAT | GGGTAGAAAC | TGGCTGCGCG | TGGTGTAAAA | GTGCAAGAG | GTGTATCCAC | 2100 |
| | CCCTTCACAG | CTTCCGACCC | TTCTGATTAT | GAGAGAAACC | AGGAACAGTG | TCCAGTGGCT | 2160 |
| | GTCCAGAGA | CATCAGGAGG | AGGAGAGACC | AAGGAGAAC | AGGGGAACAG | AACCAACAG | 2220 |
| | GCCTTACAGG | TCTTCTACAT | TAAGTCCATT | GAAGCCACAG | AAGTATCGAC | ATTAGGGAAA | 2280 |
| 10 | AGCAACGTGA | TAGTAACGGG | AGCAAACTTT | ACCCGGGCAT | CGAACATCAC | AATGATCCG | 2340 |
| | AAAGGAACCA | GTACCTGTGA | TAAGGATGTG | ATACAGGTTA | GCCATGTGCT | AAATGACACC | 2400 |
| | CACATGAAT | TCTCTCTTCC | ATCAAGCCCG | AAAGAAATGA | AGGATGTGCT | TATCCAGTTT | 2460 |
| | GATGGTGGGA | ACTGCTCTTC | TGTGGGATTC | TTATCCTACA | TGCTCTGCGC | ACATTGTTCC | 2520 |
| | CTTATATTTC | CTGCTACAC | CTGGATCAGT | GGTGGTCAAA | ATATAACCAT | GATGGGCAGA | 2580 |
| 15 | AATTTTGAAT | TAATTGACAA | CTTAATCATT | TCACATGAAT | TAAAGGAA | CATAAATGTC | 2640 |
| | TCGTAATATT | GTGTGGGAC | TTACTGCGGG | TTTTTAGCCC | CCAGTTTAAA | GGGTTCAAAA | 2700 |
| | GTGCGACGA | ATGTCACTGT | GAAGCTGAGA | GTACAAGACA | CCTACTTGG | TTGTGGAACC | 2760 |
| | CTGCAGTATC | GGGAGGACCC | CAGATTCAAG | GGGTATCGGG | TGGAATCCGA | GGTGGACACA | 2820 |
| | GAACCTGAA | TGAAATATCA | AAAGAAATAT | GAACACTTCA | ATATTTCCAA | AAAGACATT | 2880 |
| 20 | GAAATTAAGT | CTTCTCATCG | GGAAATGGG | CAATTAAAT | GCAGTTTGA | AAATATTACT | 2940 |
| | AGAAATCAAG | ATCTTACAC | CATCCTTTCG | AAATTAAG | GCATCAAGAC | TGCAAGCACC | 3000 |
| | ATTGCCAAT | CTTCTAAGAA | AGTTCCGGTC | AAGCTGGGA | ACCTGGAGCT | CTACGTCGAG | 3060 |
| | CAGGAGTCAG | TCTCTTCCAC | ATGGTATTTT | CTGATTGTGC | TCCCTGTCTT | GCTAGTGAAT | 3120 |
| | GTCAATTTTG | OGGCGGTGG | GGTGACCAAG | CACAAATCGA | AGGAGCTGAG | TCCCAACAG | 3180 |
| 25 | AGTCAACAC | TGAATATGCT | GGAAAGCGAG | CTCCGGAAAG | AGATACGTGA | CGGCTTTGCT | 3240 |
| | GAGCTGCAGA | TGGATAAAT | GGATGTGTT | GATAGTTTG | GAACGTCTCC | CTTCTTGAC | 3300 |
| | TACAAACATT | TGCTCTGAG | AACCTTCTTC | CCTGAGTCAG | GAGGCTTCC | CCCATCTTC | 3360 |
| | ACTGAAGATA | TGCATAACAG | AGACGCCAAC | GACAAGAATG | AAAGCTTCAC | AGCTTTGGAT | 3420 |
| | GCCTTAATCT | GTAATAAAG | CTTCTCTGTT | ACTGTCTATC | ACACCTTGA | AAAGCAGAG | 3480 |
| 30 | AACCTTTCTG | TGAAGACAG | GTGCTCTGTT | GCCTCTCTTT | TAACCATGTC | ACTGCAAAAC | 3540 |
| | AAGCTGTCT | ACCTGACAG | CATCCTAGAG | GTGCTGACCA | GGGACTTGAT | GGAACAGTGT | 3600 |
| | AGTAACATGC | AGCCGAACT | CATGCTGAGA | CGCAGGAGT | CCGTGCTGA | AAAACCTCTC | 3660 |
| | ACAACTGGA | TGTCGCTCG | CCTTCTGGA | TTTCTCGGG | AGACTGTGG | AGAGCCCTTC | 3720 |
| | TATTTCTGCG | TGACGACTCT | GAACCAAGAA | ATTAACAAGG | GTCCCGTGG | TGTAACTACT | 3780 |
| 35 | TGCAAGGCC | TGTAACACT | TAATGAAGAC | TGGCTGTTGT | GGCAGTTCC | GGAATTCACT | 3840 |
| | ACTGTGCGAT | TAAAGCTCGT | CTTTGAAAA | ATCCCGAAA | ACGAGAGTGC | AGATGTCTGT | 3900 |
| | CGGAATATT | CAGTCAATGT | TCTCGACTGT | GACACCATTC | GCCAGCCAA | AGAAAAGATT | 3960 |
| | TTCCAGCAT | TCTTAAGCAA | AAATGGCTCT | CCTTATGGAC | TTGAGCTTAA | TGAAATTTGT | 4020 |
| | CTTGAGCTTC | AAATGGGAC | ACGACAGAAA | GAACCTCTCG | ACATCGACAG | TTCTCTCGTG | 4080 |
| 40 | ATTCTTGAAG | ATGGAATCAC | CAGCTAAAC | ACCATTGGCC | ACTATGAGAT | ATCAAAATGA | 4140 |
| | TCCACTATAA | AAGTCTTTAA | GAAGATAGCA | AATTTACTT | CAGATGTGGA | GTACTCGGAT | 4200 |
| | GACCACTGCC | ATTGATTTT | ACCAGATTCC | GAAGCAATCC | AGATGTGCA | AGGAAAGAGA | 4260 |
| | CATCGAGGGA | AGCACAAGTT | CAAAATGAAA | GAAATGTATC | TGACAAAGCT | GCTGTGGAAC | 4320 |
| | AAGGTGGCAA | TTCACTCTGT | GCTTGAAAA | CTTTTGAAGA | GCATTGAGG | TTTACCCAAC | 4380 |
| 45 | AGCAGAGCT | CATTGTCTAT | AAAATACTTT | TTTGACTTTT | TGGAGGCCCA | GGCTGAAAC | 4440 |
| | AAAAAATCA | CAGATCCGGA | CTCTGTACAT | ATTTGAAAA | CAACAGCCT | TCTCTTCCG | 4500 |
| | TTCTGGGTAA | ACATCTCGAA | GAACCTCTAG | TTTGTCTTTG | ACATTAAAG | GACACCACT | 4560 |
| | ATAGACGGCT | GTCTGTCTAG | GATTCGCCAG | GCATTCATGG | ATGCATTTTC | TCTCACAGAG | 4620 |
| | CAGCACTAG | GGAGGAGAGC | ACCAACTAAT | AAGCTTCTCT | ATGCCAAGGA | TATCCCAAC | 4680 |
| 50 | TACAAAGAG | ATGGAATATC | TTATTAACAA | GCATTCAGGG | ATTGCTCTCC | ATTGTCATCC | 4740 |
| | TCAGAAATGG | AGAATTTTT | AACTCAGGAA | TCTAAGAAAC | ATGAAATGA | ATTTAATGAA | 4800 |
| | GAGGTGGCCT | TGACGGAAT | TTACAAATAC | ATCTGAAAT | ATTTTGATGA | GATTTTAAAT | 4860 |
| | AAACTAGAAA | GAGAACGAGG | GCTGGAAGAA | GCTCAGAAAC | AACCTTTCGA | TGTAAAGTTC | 4920 |
| | TTATTTGATG | AAAGAGAGAA | ATGCAAGTGG | ATGTAAGCAC | TCTGGGGCCT | GGCTTAATCT | 4980 |
| 55 | GGCAAGTTC | TTCCAGCAG | TTGGGAGCAA | AATGGCTGCT | TGAGCTACTC | TGTGTGTTA | 5040 |
| | ATTGTGTTT | TGACATAGG | TTCCACTTTG | GGCAGTCTCT | TTTTAAGAGA | CCAAGGCACA | 5100 |
| | TGCACAGCTT | TTAAGAGCA | A | | | | 5121 |

Seq ID NO: C128 DNA Sequence

Nucleic Acid Accession #: NM_002185.1

Coding sequence: 23..1402

| | | | | | | | |
|----|------------|-------------|------------|-------------|------------|-------------|------|
| 60 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | CTCTCTCTCT | ATCTCTCTCA | GAATGACAAT | TCTAGGTACA | ACTTTTGGCA | TGGTTTTTTC | 60 |
| 65 | TTTACTTCMA | GTGTTTTCTG | GAGAAAGTGG | CTATGCTCAA | AATGGAGACT | TGGAGATGTC | 120 |
| | AGAACTGGAT | GACTACTCAT | TCTCATGCTA | TAGCCAGTTG | GAAGTGAATG | GATGCGACAG | 180 |
| | TTCACTGACC | TGTGCTTTTG | AGGACCCAGA | TGTCACACCC | ACCAATCTGG | AAATTGAAAT | 240 |
| | ATGTGGGGCC | CTCGTGGAGG | TAAAGTGCC | GAATTTCTAG | AAACTACAG | AGATATATTT | 300 |
| 70 | CATCGAGACA | AAGAAATTTCT | TACTGATTGG | AAAGAGCAAT | ATATGTGTGA | AGGTGGAGA | 360 |
| | AAAGAGTCTA | ACCTGCAAAA | AAATAGACCT | AAACCATATA | GTAAACCTG | AGGCTCTTTT | 420 |
| | TGACCTGAGT | GTATCTATTC | GGGAGGAGCC | CATGACTTTT | GTGGTGACAT | TTAATACATC | 480 |
| | ACACTTGCNA | AGAAGTATG | TAAAAGTTTT | AATGCATGAT | GTAGCTTACC | GCCGGAAGAA | 540 |
| | GGATGAAAC | AAATGAGCAG | ATGTGAATTT | ATCCAGCACA | AAGCTGACAC | TCCTGCGAGG | 600 |
| 75 | AAAGCTCCAA | CCGCGAGCAA | TGTATGAGAT | TAAAGTTCGA | TCCATCCCTG | ATCACATTTT | 660 |
| | TAAAGGCTTC | TGGAGTGAAT | GGAGTCCAG | TTATTACTTC | AGAACTCCAG | AGATCAATAA | 720 |
| | TAGCTCGAGT | GAGATCGGAT | CTATCTTACT | AAACCATGAC | ATTTTGAGTT | TTTTCTCTGT | 780 |
| | CGCTCTGTTC | GTCTCTTTGG | CCTGTGTGTT | ATGGAAAAAA | AGGATTAAGC | CTATCTGTATG | 840 |
| | GCCCGAGTCT | CCGATCATA | AGAAGACTCT | GGAACATCTT | TGTAAAGAAC | CAAGAAAAAA | 900 |
| 80 | TTTAAATGTG | AGTTTCAATC | CTGAAAGTTT | CCTGGACTGC | CAGATTCAAT | GGGTGGATGA | 960 |
| | CATTCAAGCT | AGAGATGAAG | TGGAAGGTTT | TCTGCAAGAT | ACGTTTCTCT | AGCAACTAGA | 1020 |
| | AGAACTGAG | ATCGACAGGC | TGGAGGGGGA | TGTGCAGAGC | CCCACTGCC | CATCTGAGGA | 1080 |
| | TGTAGTCTGC | ACTCCAGAAA | GCTTTGGAAG | AGATTCAATCC | CTCACATGCC | TGGCTGGGAA | 1140 |
| | TGTAGTGCNA | TGTGAGGCC | CTATTCTCTC | CTCTTCCAGG | TCCTTAGACT | GCAGGGAGAG | 1200 |
| | TGGCAAGAAT | GGGCTCATG | TGTACCAGGA | CCTCTCTGCT | AGCCTTGGGA | CTACAAACAG | 1260 |

5 CACGCTGCC CCTCCATTTT CTCTCCAATC TGGAAATCTG ACATTGAACC CAGTTGCTCA 1320
 GGGTCAGCCC ATTCTTACTT CCTTGGGATC AAATCAAGAA GAAGCATATG TCACCATGTC 1380
 CAGCTTCTAC CAAAACCACT GAAGTGTAG AAACCCAGAC TGAACCTACC GTGAGCGACA 1440
 AAGATGATTT AAAAGGGAAG TCTAGAGTTC CTAGTCTCCC TCACAGCACA GAGAAGACAA 1500
 AATTAGCAAA ACCCCACTAC ACAGTCTGCA AGATTCTGAA ACATTGCTTT GACCACTCTT 1560
 CCGTAGTTCA GTGGCACTCA ACATGAGTCA AGAGCATCTT GCTTCTACCA TGTGGATTTC 1620
 GTCACAAGGT TTAAGGTGAC CCAATGATTG AGCTATTT 1658

10 Seq ID NO: C129 DNA Sequence
 Nucleic Acid Accession #: NM_002722.1
 Coding sequence: 15..302

15 1 11 21 31 41 51
 ACTCTGACT CCGGATGGCT GCCGCACGCC TCTGCTCTC CTGCTGCTC CTGTCCACCT 60
 GGGTGGCTCT GTTACTACAG CCACTGCTGG GTGCCCAGGG AGCCCCACTG GAGCCAGTGT 120
 ACCCAGGGGA CAATGCCACA CCAGAGCAGA TGGCCCAAGTA TGCAGCTGAT CTCGGTAGAT 180
 ACATCAACAT GCTGACCAGG CCTAGCTATG GGAAGAGACA CAAAGAGGAC ACCTGCTGCT 240
 TCTGGAGTGG GGGTCCCGG CATGCTGCTG TCCCCAGGGA GCTCAGCCCG CTGGACTTAT 300
 AATGCCACCT TCTGTCTCTT ACGACTCCAT GAGCAGCGCC AGCCAGCTCT TCCCTCTGCT 360
 AACCTTGGCT CTGGCCAAAG CTGCTCTCTT GCTCCACAC AGGCTCAATA AAGCAAGTCA 420
 AAGCC 425

25 Seq ID NO: C130 DNA Sequence
 Nucleic Acid Accession #: NM_032545.1
 Coding sequence: 47..718

30 1 11 21 31 41 51
 AAATGATCT TCAATGCACT AAGAGAAGGA GACTCTCAA CCAAAATGA CCTGGAGGCA 60
 CCATGTGAGG CTCTGTGTTA CGGTCACTTT GGCATTACAG ATCATCATTT TGGGAAACAG 120
 CTTATCAAGA GAGAAACATA ACGGCGGTAG AGAGGAAGTC ACCAAGGTTG CCACTCAGAA 180
 GCACCGACAG TCACCGCTCA ACTGGACCTC CAGTCATTTT GGAGAGGTGA CTGGGAGCGC 240
 CGAGCGCTGG GGGCCGGAGG AGCCGCTCCC CTACTCCCGG GCTTTCGGAG AGGTGCGCTC 300
 CGCGCGGCGG CGCTGCTGCA GGAACGCGCG TACCTGCGTG CTGGGCACTT TCTGCGTGTG 360
 CCGGCGCCAC TTACCCGCGC GCTACTGCGA GCATGACCAG AGGCGCAGTG AATGCGGCGC 420
 CCTGGAGCAC GAGGCTGGA CCTTCGCGC CTGCCACCTC TGCAGGTGCA TCTTCGGGGC 480
 CTTGCACTGC CTCCCTCTCC AGACGCTTGA CCGCTGTGAC CGAAAGACT TCCTGGCTCT 540
 CCACGCTCAC GGGCCGAGCG CCGGGGGGCG GCCCAGCCTG CTACTCTTGC TGCCCTGCGC 600
 ACTCTGTCAC CGCTCTCTGC GCGCGGATGC GCGCGCGCAC CCTCGGTCCC TGGTCCCTTC 660
 CGTCTCTCAG CCGGAGCGCG GCGCCCTGCG AAGGCCGGGA CTGGGCACTC GCCTTTAATT 720
 TTTATGTTG TAAATAATAG ATGTTTATG TTTACGTA GCTGAAGCAC TGGGTGAATA 780
 TTTTATGTT GTAATAAATA TTTTCATGAA AGCGCCAAAA AAAAAAATAA AAAAAAATAA 840
 AAAAAA 846

45 Seq ID NO: C131 DNA Sequence
 Nucleic Acid Accession #: NM_006533.1
 Coding sequence: 72..467

50 1 11 21 31 41 51
 AGGGAGAGAG GGAGGGGAGG AAATTGGAGA CCCCAGCACC CCCTTGTCTA CTCTCTGCT 60
 CACAGTCCAC GATGGCCCGG TCCCTGGTGT GCCTTGGTGT CATCATCTTG CTGTCTGCT 120
 TCTCCGGACC TGGTGTCTAG GGTGGTCTTA TGGCCAGCT GGTGACCGG AAGCTGTGTG 180
 CGGACCGAGA GTGCAGCCAC CCTATCTCCA TGGCTGTGGC CCTTCAGGAC TACATGGCCC 240
 CCGACTGCGG ATTCTCTGAC ATTCACTGGG GCCAAGTGGT GTATGCTTTC TCCAGCTGTA 300
 AGGGCGGTGG GCGGCTCTTC TGGGGAGGCA GCGTTCAGGG AGATTACTAT GGAGATCTGG 360
 CTGCTCGCTT GGGCTATTTC CCGAGTACCA TTGTCCGAGA GGACCAAGAC CTGAACCTGG 420
 GCAAGTCTGA TGTGAAGACA GACAAATGGG ATTTCTACTG CCAGTGAGCT CAGCTACCG 480
 CTGGCCCTGC CGTTTCCCTT CCTTGGGTTT ATGCAAAATC AATCAGCCCA GTGCAAAC 538

65 Seq ID NO: C132 DNA Sequence
 Nucleic Acid Accession #: AB064272
 Coding sequence: 1..708

70 1 11 21 31 41 51
 ATGACACAAG TCACAGAAAA GTCCACAGAA CACCCAGAAA AGACCAAGTC AACCCAGAG 60
 AAAACCACAA GAACCCAGAA AAGCCCTACG CTATACTCAG AGAAGACCAT ATGCACCAA 120
 GGGAAAAACA CACCACTGCC AGAAAAGCCT ACAGAAAACC TGGGGAAACAC CACACTGACC 180
 ACTGAGACCA TAAAAGCCCC AGTAAAGTCC ACAGAAAACC CAGAAAAAAC AGCAGCAGTC 240
 ACABAAGCTA TAAAACCTTC AGTCAAGGTC ACAGGAGACA AATCTCTCAC TACTACCTCT 300
 TCTCATCTAA ATAAAACCTGA AGTTACTCAT CAGGTGCCCA CTGGTCTCTT CACCTCTCAT 360
 ACATCTAGAA CGAAGCTGAG TTCTATCACA TCAGAAGCCA CAGGAACCGA GAGCCATCCA 420
 TACCTCAATA AAGATGGCTC ACAGAAAGGT ATCCACGCTG GACAGATGGG AGAGAATGAT 480
 TCATTCCCCTG CATGGGCCAT AGTTATTGTG GTCCGCTGGG CTGTGATTCT CCTCCTGGTG 540
 TTCCCTGGCC TGAATCTTCT GGTCTCTCTT ATGATGCGGA CACGCCGCGA ACTAACCCAG 600
 AACACCCAGT ACAATGATGC AGAGGATGAG GGTGGCCCCA ATTCCTACCC GGTCTACCTG 660
 ATGGAGTCAG AGAATCTTGG CATGGGCCAG ATCCCTTCCC CAGGGTGA 708

80 Seq ID NO: C133 DNA Sequence
 Nucleic Acid Accession #: NM_080870.1
 Coding sequence: 3..710

| | | | | | | | |
|----|-------------|-------------|------------|------------|-------------|------------|------|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 5 | AGATGACACA | AGTCACAGAA | AAGTCCACAG | AACACCTAGA | AAAGACCAAG | TCAACCACAG | 60 |
| | AGAAAACCCAC | AGAAACCCCA | GAAAAGCCTA | CGCTATACCT | AGAGAGAGCC | ATATGCACCA | 120 |
| | AAGGGAAAAA | CACACCACTC | CCAGAAAAGC | CTACAGAAAA | CCTGGGGAAC | ACCACACTGA | 180 |
| | CCACTGAGAC | CATAAAAGCC | CCAGTAAAGT | CCACAGAAAA | CCCAGAAAAA | ACAGCAGCAG | 240 |
| | TCACAAAGAC | TATAAAACCT | TCAGTCAAGG | TCACAGGAGA | CAATCTCTCT | ACTACTACCT | 300 |
| 10 | CTTCTCATCT | AAATAAAACT | GAAGTTACTC | ATCAGGTGCC | CACTGGTTCT | TTCAOCTCA | 360 |
| | TTACATCTAG | AACGAAGCTG | AGTTCATCA | CATCAGAGC | CACAGGAAC | GAGAGCCATC | 420 |
| | CATACCTCAA | TAAAGATGGC | TCACAGAAAG | GTATCCACGC | TGGACAGATG | GGAGAGAATG | 480 |
| | ATTTCATTCC | TGCATGGGCC | ATAGTTATTG | TGGTCTGGT | GGCTGTGATT | CTCCTCTGG | 540 |
| | TGTTCTTGG | CTGATCTTC | TTGGTCTCCT | ATATGATCG | GACACGCGCG | ACACTAACCC | 600 |
| 15 | AGAACACCCA | GTACAATGAT | GCAGAGGATG | AGGGTGGCCC | CAATTCCTAC | CCGGTCTACC | 660 |
| | TGATGGAGCA | GCAGAACTCT | GGCATGGGCC | AGATCCCTTC | CCACCGTGA | TCTTGGAGTA | 720 |
| | GGCGCCCAAG | CTTGGCTCTT | CCATGCTCTG | CCCTTTCTCT | GGATGAGGAA | CCGGACTCAC | 780 |
| | AAATTTCTAT | TCGGGACTA | CAGGAAGGGC | AGAGAATACT | GACGTTTACC | AGTATTAAAC | 840 |
| | CTTCATCTGT | TCCTGAAACT | GGTGGGGGAA | TGAGGTGATA | AGCAAGGAGG | GTGTAAGTTT | 900 |
| 20 | AGGGGACAAA | GAAGAAAGAA | TGAATAATAC | GAGCAGACAT | TCTCTGTAGA | AGGTAATGGT | 960 |
| | CTGAGAAATGA | AAAGGTGTTT | GATGGACATG | TTGTGGGGGC | ACCAATGCAG | AACACTGCAC | 1020 |
| | TGAGTCTCTA | AGGAAGGACA | GGAGCCTTAT | AGGCAATGCC | CCAGACTGAC | TTGTGAGTGG | 1080 |
| | GGTTTATGGG | GAAGGGGAGG | GACTGAGGGC | AGAGTCTCTG | GGTTTCAGGA | CAGCATTATG | 1140 |
| | TTATTTCCAT | TCACATATAC | TAAAGAGTTT | GTGTGTAAC | AGGCTCATCT | CTGAGTTCTC | 1200 |
| 25 | AGGACCTCTG | CCCCACCCCC | CATTTTCTTA | ATGAAAAAAA | AAAAACAAAA | AAACGGATCC | 1260 |
| | AAGAAGAAAA | GAGAAATTTAT | TTCCTTCTCC | ACTCTCTCCA | TGCCCTGGAG | AAAAAAAGT | 1320 |
| | CCAGAAGAAA | TCATAAATAT | CTCTCATCTA | CAAGGTGCTT | TCTCTTCTCT | CCCAATCCC | 1380 |
| | TTAGTTTCTC | TAAATGTCTA | CAGTGGAGCG | CCTGTTGGTT | TGGCTTGTCTG | GGTTGTGGGT | 1440 |
| | GGACAGCAAA | GGAGGGGATT | TTTATTTGGC | CAGCAGTCTC | ACCCACTGAT | CTCCACCCCA | 1500 |
| 30 | GACCTTCCCT | GATTTGGTGC | TCAGCATTTA | TTTTCTGTCT | TCTTCCACCA | AAAGCCAGCT | 1560 |
| | GTAGCTTTAT | CTCGTAAAG | TTACCCATCT | TCCTACTGTT | CCCATTTCTC | TCTCTCCCA | 1620 |
| | CCTTCACCCC | AGATTCAAGT | TTTCTCTCTT | GTAGGCATTT | CATCTGTGTG | TGTTTTCTGG | 1680 |
| | ATTTCTCTCT | TCCTTCTCTA | TGGCCATTTC | ACCTTATTAC | TGATPGGTA | GAGGGGAAA | 1740 |
| 35 | AGGAGAAATGA | TGATGATAGT | TTCCTTCTGT | CTATTGACCT | TTTTATTAAT | AAAGTATAAC | 1800 |
| | ATGTT | | | | | | 1805 |

Seq ID NO: C134 DNA Sequence
Nucleic Acid Accession #: FGENESH predicted
Coding sequence: 1..10674

| | | | | | | | |
|----|-------------|------------|-------------|------------|------------|------------|------|
| 40 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | ATGTGGCCCT | GGCTGGCCCT | TGTTGGCTGG | GGTCTGGCGC | TGGTTTGGGG | CTGGGCGACC | 60 |
| 45 | TTTCAGCAGA | TGTCCCGCTC | GGCGAATTTC | AGCTTCCGCC | TCTTCCCGGA | GACCGCGCCC | 120 |
| | GGGGCCCCCG | GGAGTATCCC | CGCGCGGCC | GCTCCTGGCG | ACGAAGCGGC | GGGGAGCAGA | 180 |
| | GTGGAGCGGC | TGGGCCAGGC | GTCCCGCGGA | CGCGTCCGCG | TGCTGCGGGA | GCTCAGCGAG | 240 |
| | CGCTTGAGGC | TGTTCTTCTT | GGTGGATGAT | TGGTCCAGCG | TGGGGGAAGT | CAACTTCCGC | 300 |
| | AGCGAGCTCA | TGTTCTCTCG | CAAGCTGCTG | TCCGACTTCC | CCGTGGTCCC | CACGGCCACG | 360 |
| 50 | CGCGTGGCCA | TGTTGACCTT | CTCTTCCAA | AACTACGTGG | TGCCGCGCGT | CGATTACATC | 420 |
| | TCCACCCGCC | GGCGCGGCCA | GCACAAGTGC | GGCTGCTCC | TCCAAGAGAT | CCCTGCCATC | 480 |
| | TCTTACCGAG | GTGGCGGCAC | CTACACCAAG | GGCGCCTTCC | AGCAAGCGCG | GCAAAATCTT | 540 |
| | CTTCATGCTA | GGAAGAAATC | AACAAAAGTT | GTATTTCTCA | TCACGTATGG | ATATTCCAA | 600 |
| | GGGGGAGACC | CTAGACCAAT | TGCAGCGTCA | CTGCGAGATT | CAGGAGTGGG | GATCTTCACT | 660 |
| 55 | TTTGGCATAT | GGCAAGGGAA | CATTGAGAG | CTGAATGACA | TGGCTTCCAC | CCCAAGGAG | 720 |
| | GAGCAGCTGT | ACCTGCTACA | CAGTTTGA | GAATTTGAGG | CTTTAGCTCG | COGGGCATTG | 780 |
| | CATGAAGATC | TACCTTCTGG | GAGTTTATT | CAAGATGATA | TGGTCCACTG | CTCATATCTT | 840 |
| | TGTGATGAAG | GCAAGGACTG | CTGTGACCGA | ATGGGAGCT | GCAATGTGG | GACACACACA | 900 |
| | GGCCATTCTG | AGTGCATCTG | TGAAGAGGGG | TATTACGGGA | AAAGTCTGCA | GTATGAATGC | 960 |
| 60 | ACAGCTTGGC | CATCGGGGAC | ATACAAAACCT | GAAGGCTCAC | CAGGAGGAAT | CAGCAGTTGC | 1020 |
| | ATTCATGTCT | CTGATGAAA | TCACACTCT | CCACTTGGAA | GCACATCCCC | TGAAGACTGT | 1080 |
| | GTCTGACAG | AGGGATACAG | GGCATCTGGC | CAGACCTGTG | AACTTGTCCA | CTGCCCTGCC | 1140 |
| | CTGAAGCCTC | CGAAAAATGS | TTACTTTATC | CAAAACACTT | GCAACAACCA | CTTCAATGCA | 1200 |
| | GCTGTGGGG | TCCGATGTCA | CCCTGGATTT | GATCTTGTGG | GAAGCAGCAT | CATCTTATGT | 1260 |
| 65 | CTACCCATG | GTTTGTGGTC | CGGTTCCAG | AGCTACTGCA | GAGTAAGAAC | ATGTCTCAT | 1320 |
| | CTCGCGCAGC | CGAAACATGG | CCACATCAGC | TGTTCTACAA | GGGAATGTT | ATATAAGACA | 1380 |
| | ACATGTTTGG | TGGCTGTGA | TGAAGGTAC | AGACTAGAA | GCAGTGTAA | GCTTACTTGT | 1440 |
| | CAAGGAACA | GCCAGTGGGA | TGGGCCAGAA | CCCGGTGTG | TGGAGCGCCA | CTGTTCCACC | 1500 |
| | TTTCAGATGC | CCAAAGATGT | CATCATATCC | CCCCCAACT | GTGGCAAGCA | GCCAGCCAAA | 1560 |
| 70 | TTTGGGACGA | TCTGCTATGT | AAGTTGCCGC | CAAGGGTTCA | TTTTATCTGG | AGTCAAAGAA | 1620 |
| | ATGCTGAGAT | GTACCACTTC | TGGAAATGG | AATGTCGGAG | TTTCCGCGAG | TGTGTGTAAA | 1680 |
| | GACGTGGAGG | CTCTCAAT | CACTGTCTCT | AAGGACATAG | AGGCTAAGAC | TCTGGAACAG | 1740 |
| | CAAGATTCTG | CCAATGTTAC | CTGGCAGATT | CCACAGCTA | ARGACAACCT | TGGTGAAAG | 1800 |
| | GTGTGAGTCC | ACGTTTCAAT | AGCTTTTACC | CCACTTACC | TTTTCCCAAT | TGGAGATGTT | 1860 |
| 75 | GCTATCGTAT | ACACGGCAAC | TGACCTATCC | GGCAACCAGG | CCAGCTGCAT | TTTCCATATC | 1920 |
| | AAGGTTATTT | ATGCAGAAC | ACCTGTCTAT | GACTGTGTGA | GATCTCCACC | TCCGTCCAG | 1980 |
| | GTCTCGGAGA | AGGTACATGC | CGCAAGCTGG | GATGAGCTTC | AGTTCTCAGA | CAACTCAGCG | 2040 |
| | GCTGAATTGG | TCATTACCCG | AAGTCATACA | CAAGGAGACC | TTTTCCCTCA | AGGGGAGACT | 2100 |
| | ATAGTACAGT | ATACAGCCAC | TGACCCCTCA | GGCAATAACA | GGACATGTGA | TATCATATTT | 2160 |
| 80 | GTCTATAAAG | GTCTCTCCCT | TGAAATTCCA | TTCCACCTCG | TAAATGGGGA | TTTTATATGC | 2220 |
| | ACTCCAGATA | ATACTGGAGT | CAACTGTACA | TAACTTGCT | TGGAGGGCTA | TGATTTACAT | 2280 |
| | GAAGGTTCTA | TATGTGTCT | TATGAAGATG | CGCTCTGGA | ACCAACATAT | | 2340 |
| | ACCACCTGAAT | GGCCAGACTG | TGCCAAAAAA | CGTTTGTCAA | ACCACGGGTT | CAAGTCTCTT | 2400 |
| | GAGATGTTCT | ACAAAGCAGC | TGTTGTGAT | GACACAGATC | TGATGAGAA | GTTTTCTGAA | 2460 |
| | GCATTTBAGA | CAACCTTGGG | AAAAATGGTC | CCATCATTTT | GATGATGATC | AGAGGACATT | 2520 |

| | | | | | | | |
|----|-------------|-------------|-------------|------------|-------------|-------------|------|
| | GACTGCAGAC | TGGAGGAGAA | CTGACCACAA | AAATATTGOC | TAGAATATAA | TTATGACTAT | 2580 |
| | GAATAATGGCT | TTGCATTTGG | ACCAGGTGGC | TGGGGTGCAG | CTAATAGGCT | GGATTACTCT | 2640 |
| | TACGATGACT | TCCTGGACAC | TGTGCAAGAA | ACAGCCACAA | GCATCGGCAC | TGCCAAGTCC | 2700 |
| 5 | TCACGAGTAA | AAAGAAGTGC | CCCATTTATCT | GACTATAAAA | TTAAGTTAAT | TTTTAAATATC | 2760 |
| | ACAGCTAGTG | TGCCATTACC | CGATGAAAGA | AATGATACCC | TTGAATGGGA | AAATCAGCAA | 2820 |
| | CGACTCTCTC | AGACATTGGA | AACTATCACA | AATAAACTGA | AAAGGACTCT | CAACAAGAAC | 2880 |
| | CCCATGTATT | CTTTTCAGCT | TGCATCAGAA | ATACTTATAG | CCGACAGCAA | TTCATTAGAA | 2940 |
| | ACAAAAAAGG | CTTCCCCCTT | CTGCAGACCA | GGCTCAGTGC | TGAGAGGGCG | TATGTGTGTC | 3000 |
| 10 | AAATTGCCCTT | TGGGAACCTA | TTATAATCTG | GAACATTTCA | CCTGTGAAAG | CTGCCGGATC | 3060 |
| | GGATCCTATC | AAGATGAAGA | AGGGCAACTT | GAGTGCAGC | TTTGGCCCTC | TGGGATGTAC | 3120 |
| | ACGGAATATA | TCCATTTCAAG | AAACATCTCT | GATTGTAAAG | CTCAGTGTAA | ACAAGGCCAC | 3180 |
| | TACTCATACA | GTGGACTTGA | GACTTGTGAA | TGCTGTCCAC | TGGGCACCTA | TCAGCCAAAA | 3240 |
| | TTTGGTTCCC | GGAGCTGCCT | CTGTGTCCA | GAACACACT | CAACTGTGAA | AAGAGGAGCC | 3300 |
| 15 | GTGAACATTT | CTGCATGTGG | AGTTCTCTGT | CCAGAAGGAA | AATTCTCGCG | TTCTGGGTTA | 3360 |
| | ATGCCCTGTC | ACCCCTATGC | TCGTGACTAT | TACCAACCTA | ATGCAGGGAA | GGCCTTCTGC | 3420 |
| | CTGGCCTGTC | CCTTTATATG | AACTACCCCA | TTGCTGTGTT | CCAGATCCAT | CACAGAATGT | 3480 |
| | TCAACTTCAG | TCTTGAATAT | TACTATTTTC | GGTGGATTGG | GGCATCTGGA | GTGTGTAAT | 3540 |
| | TGTCTCTCTG | AGGTTTTCOA | TGAATGCTTC | TTTAACCTTT | GCCACAATAG | TGGAACCTGC | 3600 |
| 20 | CAGCAACTTG | GGCTGTGTTA | TGTTTGTCTC | TGTCACCTTG | GATATACAGG | CTTAAAGTGT | 3660 |
| | GAACAGACCA | TCGATGAGTG | CAGCCCACTG | CCTTGCCTCA | ACAAATGGAGT | TTGTAAAGAC | 3720 |
| | CTAGTTGGGG | AATTCATTTG | TGAGTGCCCA | TCAGGTTACA | CAGGTGAGCG | GTGTGAAGAA | 3780 |
| | AATATAAATG | AGTGTAGCTG | CAGTCTTTGT | TTAAATAAAG | GAATCTGTGT | TGATGGTGTG | 3840 |
| | GGTGGCTATC | GTTCGACATG | TGTGAAGGGA | TTTGTAGGCC | TGCATTGTGA | AACAGAAGTC | 3900 |
| 25 | AATGAATGCC | AGTCAAACCC | ATGCTTAAAT | AATGCACTCT | GTGAAGACCA | GGTGGGGGA | 3960 |
| | TTCTTGTGCA | AATGCCACCC | TGGATTTTTG | GGTACCCGAT | GTGGAAGAA | CGTGGATGAG | 4020 |
| | TGCTCTCAGT | AGGATGACAA | AAATGGAGCT | ACCTGTAAAG | ACGGTGCCAA | TAGCTTCAGA | 4080 |
| | TGCTGTGTG | CAGTGTGCTT | CACAGGATCA | CACCTGTGAT | TGAACATCAA | TGAATGTGAG | 4140 |
| | TCTATATCCAT | GTAGAAATCA | GGCCACCTGT | GTGGATGAT | TAAATTCATA | CAGTTGTAAA | 4200 |
| 30 | TGTCAGCCAG | GATTTTCAGG | CAAAAGGTGT | GAACAGAAC | AGTCTACAGG | CTTAAACCTG | 4260 |
| | GATTTTGAAG | TTTCTGACAT | CTATGGATAT | GTCTGCTAG | ATGGCATGCT | CCCATCTCTC | 4320 |
| | CATGCTCTAA | CCGTGACCTT | CTGGATGAAA | TGCTCTGACG | ACATGAACCTA | TGGAACACCA | 4380 |
| | ATCTCTATG | CAGTGTATTA | CGGCAGCGAC | AATACCTTGC | TGCTGACTGA | TTATAACGGC | 4440 |
| | TGGGTCTCTT | ATGTGAATGG | CAGGGAAGAG | ATAACAAACT | GTCCCTCGGT | GAATGATGGC | 4500 |
| 35 | AGATGGCATC | ATATTCGAT | CACCTTGGCA | AGTGCCTAAG | GCATCTGGAA | AGTCTATATC | 4560 |
| | GATGGGAAT | TATCTGACGG | TGGTGTGGC | CTCTCTGTTG | GTATGCCCCAT | ACCTGGTGGT | 4620 |
| | GGTGCGTTAG | TTCTGGGGCA | AGAGCAAGAC | AAAAAAGGAG | AGGGATTGAC | CCGAGCTGAG | 4680 |
| | TCCTTTGTGG | GCCTCATTAAG | CCAGCTCAAC | CTCTGGGACT | ATGTCTCTGTC | TCCACAGCAC | 4740 |
| | GTGAAGTCAC | TGGCTACCTC | CTGCCCTGAG | GAATCAGTA | AAGGAACGCT | GTAGCATGAG | 4800 |
| 40 | CCGATTTCT | TGTCGGAAT | TGTGGGGAAA | GTGAAGATCG | ATTCTAAGAG | CATATTTTGT | 4860 |
| | TCGATTTGCC | CACGCTTAGG | AGGGTCAGTG | CCTCATCTGA | GAATGCTATC | TGAAGATTTA | 4920 |
| | AAGCCAGGTT | CCAAAGTCAA | TCTGTTCTGT | GATCCAGGCT | TCCAGCTGCT | CGGGAACCTT | 4980 |
| | GTGCAATGAT | GTCTGATCAA | AGGACAGTGG | ACACAAACAC | TTCCTCACTG | TGAACGCATT | 5040 |
| | AGCTGTGGGG | TGCCACCTCC | TTTGGAAGAT | GGCTTCCATT | CAGCCGATGA | CTTCTATGCT | 5100 |
| 45 | GGCAGCACAG | TAACTTACCA | GTGCAACAAT | GGCTACTATC | TATTGGGTGA | CTCAGGATG | 5160 |
| | TTCTGTACAG | ATAATGGGAG | CTGGAACGGC | GTTTCAACAT | CCTGCCCTGA | TGTGATGAG | 5220 |
| | TGTGCACTGT | GATCAGATTG | TAGTGAGCAT | GCTTCTTGCC | TGAACGTAGA | TGGATCTTAC | 5280 |
| | ATATGTTCT | GTGTCCCATC | GTACACAGGA | GATGGGAAAA | ACTGTGCGAG | ACCTATAAAA | 5340 |
| | TGTAAGGCTC | CAGGAATCC | GGAAATGGC | CACCTCTCAG | GTGAGATTTA | TACAGTAGGT | 5400 |
| 50 | CCCGAGTCA | CATTTTGTGT | TGAGGAAGGA | TACCACTTGA | TGGGAGTAAC | CAAAATCACA | 5460 |
| | TGTTTGGAGT | CTGGAAGATG | GAATCATCTA | ATACCATATT | GTAAAGCTGT | TTCATGTGGT | 5520 |
| | AAACCGGCTA | TTCCAGAAAA | TGGTTGCATT | GAGGAGTTAG | CATTTACTTT | TGGCAGCAAA | 5580 |
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| | GCTAACAGTT | CTTGGAGTCA | TTCCCTCTCT | GTGTGTGAAC | CAGTGAAGTG | TTCTAGTCCG | 5700 |
| 55 | GAATAATATA | ATAATGGAAA | ATATATTTTG | AGTGGGCTTA | CCTACTTTTC | TACTGCATC | 5760 |
| | TATTCAITGG | ATACAGGATA | CAGCTTACAG | GGCCCTTCCA | TTATTGAATG | CACGGCTTCT | 5820 |
| | GGCATCTGGG | ACAGAGGOGC | ACCTGCCTGT | CACCTCGTCT | TCTGTGGAGA | ACCACCTGCC | 5880 |
| | ATCAAGATG | CTGTCTTATC | GGGGAATAAC | TTCACTTTCA | GGAAACACCT | CACCTTCACT | 5940 |
| | TGCAAGGAAG | GCTATATCTT | TGCTGGTCTT | GACACCATG | AATGCTGGGC | CGACGGCAAG | 6000 |
| 60 | TGGAGTAGAA | GTGACACAGA | GTGCTCTGCT | GTCTCTGTG | ATGAGCCACC | CATTGTGGAC | 6060 |
| | CACGCTCTCT | CAGAGACTGC | CCATGGGCTC | TTTGGAGACA | TTGCATTCTA | CTACTGCTCT | 6120 |
| | GATGGTTACA | GCTTAGCAGA | CAATTCGCCAG | CTTCTCTGCA | ATGCCAGGG | CAAGTGGGTA | 6180 |
| | CCCCCAGAAG | GCTCAAGACAT | GCCCCCTTGT | ATAGCTCAAT | TCTGTGAAAA | ACCTCCATCG | 6240 |
| | GTTCCTTATA | GCTCTTGGGA | ATCTGTGAGC | AAAGCAAAAT | TTGCACTGCG | CTCAGTTGTG | 6300 |
| 65 | AGCTTTAAAT | GCATGGAAGG | CTTTGTACTG | AACACCTCAG | CAAAAGATTGA | ATGATGAGA | 6360 |
| | GGTGGGCGT | GGAAACCTTC | CCCCATGTCC | ATCCAGTGCA | TCCCTGTGCG | GTGTGGAGAG | 6420 |
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| | ACAGGGCAGT | GGAGTAGTCC | TATACCGAGC | TGCCACCCGG | TATCTTGTGG | TGAACCACTT | 6600 |
| 70 | AAGGTGTAGA | ATGGCTTTCT | GGAGCATACA | ACTGGCAGGA | TCTTTGAGAG | TGAAGTGAGG | 6660 |
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| 75 | AAATGTAGTA | AGAGTCAAAA | TCCAAAGTGC | ATGCCCTGCA | AGTGCCTAGA | GCGGCCCTC | 6960 |
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| | TGGAATGACT | CTTCCCTCTG | TTGTAAAGAT | GTCTTTTSTA | CCCCACCTCC | CCTAATTTCC | 7140 |
| | TTTGGTGTCC | CCATCTCTTC | TTCTGCTCTT | CATTTTGGAA | GTACTGTCAA | GTATTTCTGT | 7200 |
| 80 | GTAGGTGGGT | TTTCTCTAAG | AGGAAATTTCT | ACCACCTCTC | GCCAACTCTG | TGGCACCTGG | 7260 |
| | AGCTCTCCAC | TGCCAGAAATG | TGTTCCAGTA | GAATGTCCCC | AACCTGAGGA | AATCCCCAAT | 7320 |
| | GBAATCATTG | ATGTGCAAGG | CCTTGCTAT | CTCAGCACAG | CTCTCTATAC | CTGCAGGCA | 7380 |
| | GGCTTTGAAT | TGGTGGGAAA | TACTACCCAC | CTTTGTGGAG | AAATATGTCA | CTGGCTTGGG | 7440 |
| | GGAAACCAAA | CATGTAAAGC | CATTGAGTGC | CTGAAACCCA | AGGAGATTTT | GAATGGCAAA | 7500 |
| | TTCTCTTACA | CGGACCTACA | CTATGGACAG | ACGGTTACCT | ACTCTTGCAA | CGAGGCTTTT | 7560 |

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Seq ID NO: C135 DNA Sequence
 Nucleic Acid Accession #: FGENESH predicted
 Coding sequence: 1..390

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Seq ID NO: C136 DNA Sequence
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 Coding sequence: 126..1745

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Seq ID NO: C137 DNA Sequence
Nucleic Acid Accession #: E08 sequence
Coding sequence: 1..1761

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Seq ID NO: C138 DNA Sequence
Nucleic Acid Accession #: FGENESH predicted
Coding sequence: 1..2310

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25 Seq ID NO: C139 DNA Sequence
 Nucleic Acid Accession #: NM_004616.2
 Coding sequence: 180..893

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55 Seq ID NO: C140 DNA Sequence
 Nucleic Acid Accession #: NM_004617.2
 Coding sequence: 232..840

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 70 CTGCTGTGAG GAGGAATCCA GATGCTCTC TGGGCCATCC AGGTGTGCAA TGGCTTCTG 780
 GGGACCTCT GTGGGAGCT CCAAGTGTGT GCGTGTGTG GGGGAGATGG ACCCGTTTAA 840
 ACGTCCGAGA TBACTGTCTC AGACTCTACA GCATGACGAC TACAATTTCT TTTCTAATAA 900
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 AGGCTGATAT TCTTCTTTC CAACCGCTT TGCTCGAGTT AGAATTTTGT TATTTTCAA 1020
 75 TAAAAAATAG TTTGGCACT TAACAATTT GATTATATA TCTTTCAAAI TAGTCTCTT 1080
 TTAGAATTTA CCAACAGGT CAAAGCATAC TTTTCATGAT TTTTATTA CAAATGTAAA 1140
 ATGTATAAAG TCACATACTA TGCCATACTA TTTCTTTGTA TATAAGATG TTTATATCTT 1200
 TGGAGTGTTC ACATAAATCA AAGGAAGAAA GCACATTTAA AATGAGAAAC TAAGACCAAT 1260
 80 TTTCTGTTTT AAGAGGAAA AGAATGATTG ATGTATCTTA AGTATTGTTA TTTGTGTCT 1320
 TTTTGTGCTG CTTGCTTGA GTTGTGTG ACTGATCTTT TGAGGCTGTC ATCATGGCTA 1380
 GGGTCTTTTT ATGTATGTTA AATTAAACC TGAATTCAGA GGTAACTG 1428

Seq ID NO: C141 DNA Sequence
 Nucleic Acid Accession #: NM_002381.2

Coding sequence: 64..1524

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5 1 11 21 31 41 51
AAATCCGAGC CTCGCGTGGG CTCCTGGCCC CCGACGGACA CCACCAGGCC CACGGAGCCC 60
ACCATCGCGC GCCCGGCCCC CGCGCGCGCG CTCGCCGGAC TCCTCCTGCT GCTCTGGCCG 120
CTGCTGCTGC TGCCCTCGGC CGCCCGCGAC CCGGTGGCCC GCCCGGGCTT CCGGAGGCTG 180
GAGACCCGAG GTCCCGGGGG CAGCCCTGGA CGCGCCCGCT CTCTGCGGC TCCCGACGCG 240
GCCCCGCTT CGCGGACCAG CGAGCCTGGC CGCGCCCGCG GTGCAAGTGT TTGCAAGAGC 300
10 AGACCCCTGG ACCTGGTGT TATCATGTAT AGTTCTCGTA GCGTAAGGCC CCTGGAATTG 360
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ACCGGGGTGG CAGTGGTGAA CTATGCTAGC ACTGTGAAGA TCGAGTTCCA ACTCCAGGCC 480
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15 GCTCGAGAGC CTTCTCTTAA CATCCCTAAG GTGGCCATCA TTGTACAGA TGGGAGGCC 660
CAGGACCAGG TGAATGAAGT GCGCGCTCGG GCCAAGCAT CTGGTATTGA GCTCTATGCT 720
GTGGGGGTGG ACCGGCGAGA CATGGCTGCC CTCAGATGA TGGCCAGTGA GCCCTTAGAG 780
GAGCATGTTT TCTACGTGGA GAACATGCG GTCATGAGA AACTTCTCT TAGATTCCAG 840
GAAACCTTCT GTGCGCTGGA CCCCTGTGTG CTGGAACAC ACCAGTGCCA GCACTCTGCT 900
20 ATCAGTGTAT GGGAGGCGAA GCACCACTGT GAGTGTAGCC AAGGATACAC CTGGAATGCC 960
GACAAAGAAA CGTGTCTAGC TCTGTATAGG TGTGCTCTTA ACACCCACGG ATGTGAGCAC 1020
ATCTGTGCGA ATGACAGGAG TGGCTCTTAT CATTTGTAGT GCTATGAAGG TTATACCTTG 1080
AATGAAGACA GGAACACTTG TTCAGCTCAA GATAAATGTG CTTTGGGTAC CCAATGGGTG 1140
25 CAGCACATTT GTGTGAATGA CAGAACAGGG TCCCATCATT GTGAATGCTA TGAGGGCTAC 1200
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30 TCGTATCTTC AAAGACTGAA CACTAAACTT GATGACATTT TGGAGAAGTT GAAAATAAAT 1500
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45 AGTGTCTGGC TTACAGGCTT GAAAGTCTAA CTTTTTITTA CTTATATATT TGATACATAT 2400
AATTCCTTTG GCTTTGAAAC TTGCAACTTT GAGAACAAAA CAGTCTTTTA AATTTTGCAC 2460
TGCTCAATTC TGTTTTTCGT TTGCATTTCT TTTAATATAA TAAAGTTAT TACCTTACA 2520
TATTATCATG TCTATTTTG ATGACTCATC AATTTTGTCT ATTAAGATA TTTCTTAA 2580
TAAAAAATAA AAAAAAATAA 2599

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Seq ID NO: C142 DNA Sequence
Nucleic Acid Accession #: NM_016639.1
Coding sequence: 40..429

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GAGCAAGCGC CAGCAGCTGC CCGCTGCTCC CGCGCGAGCT CCGTGGAGCG GAGCTGAGC 180
60 AAGTGCATGG ACTGCGCGTC TTGCAAGGCG CGACCGCACA GCGACTTCTG CCTGGGCTGC 240
GCTGCGAGCAG CTCCTGCCCC CTTCGGGCTG CTTTGGCCCA TCCTTGGGGG CGCTCTGAGC 300
CTGACCTTCC TGCTGGGCGT GCTTTCTGCG TTTTGGTCTT GAGAGCGATG CCGCAGGAGA 360
GAGAAATTCA CCAACCCCAT AGAGGAGACC GCGGAGAGGG GCTGCCGAGC TGTGGCGCTG 420
ATCCAGTGAC AATGTGCCCT CTGCCAGCGG GGGCTCGCCC ACTCATCATT CATTCATCCA 480
65 TTCTAGAGCC AGTCTCTGCC TCCAGACGCG GCGGGAGGCC AAGCTCTCTC AACCACAGG 540
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AGGTGTCTGG TTGCCCTGCC TCTGGCTCCA GAACAGAAAG GAGCGCTCAC GCTGGCTCAC 660
ACAAACAGCG TGACACTGAC TAAGGAALTG CAGCATTTGC ACAGGGGAGG GGGGTGCCCT 720
CCTTCTCTAG GACTCTGGGG CAGGCTGAC TTGGGGGGCA GACTGACAC TAGGCCCAAC 780
70 TCACCTAGAT GTCTGAAAT TCCACCACGG GGGTCACCTT GGGGGGTTAG GACCTATATT 840
TTAACAATAG GGGCTGGGCC ACTAGGAGGG CTGGCCCTAA GATACAGACC CCCCCAATC 900
CCCAAGCGG GAGGAGGATA TTTATTTTGG GAGGAGTTTG GAGGGAGGG AGAATTTATT 960
AATAAAGAA TCTTAACTT TAAAAAATAA AAAAAAATA 998

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Seq ID NO: C143 DNA Sequence
Nucleic Acid Accession #: NM_001819
Coding sequence: 113..2146

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AACCTGCTCT CTAGCCTTCC TGGGAGCGGT GGGGCTGGCG GCTGTCAATT CCATGCCAGT 180
GGATAACAGG AACCACAATG AAGGAATGCT GACTCGCTGC ATCATTGAGG TCCTCTCAAA 240

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5 TGCCCTGTGCG AAGTCCAGCG CTCACCCCAT CACCCCTGAG TGCCGCCAAG TCCTGAAGAC 300
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 AAGATTGTFTA ACAGACCCAG CTGATGCCTC GGAAGCCAC GAGTCTCTCA GCAGGGGAGA 420
 GGCAGGAGCC CCAGGGGAGG AGGACATCCA AGCCCCACA AAGGCAGACA CAGAGAAATG 480
 GGCAGAGGGA GGCGGGCACA GCGAGAGCG AGCGGATGAG CCCGAGTGGG GCCTCTATCC 540
 CTCGACAGCG CAAGTCTCTG AAGAAGTGAA GACACGCCAT TCTGAGAGA GCCAGAGAGA 600
 GGATGAGGAG GAGGAGGAGG GACAGAACTA TCAAAAAGGG GAGCGAGGGG AAGATAGCAG 660
 TGAAGAGAAA CACCTTGAAG AGCCAGGAGA GACACAAAAC GCTTTTCTCA ATGAAAGAAA 720
 GCAGGCTTCA GCTATAAAAA AAGAGGAGTT AGTGGCCACA TCGGAAACAC ATGCTGCCGG 780
 GCATTTCTCG GAGAAGACAC ATAGCCGAGA GAAGAGTAGC CAGGAGAGTG GAGAGGAGGC 840
 AGGGAGCCAG GAGATACACC CCCAGGAGTC TAAAGGCCAA CCCGAGGCC AGGAAGAATC 900
 TGAGGAAGGT GAGGACAGAT CCACCTCTGA GGTGGACAAA CGACGACGA GGCACGACA 960
 CCACCAAGCG AGGAGCAGGC CCGACAGGTC CTCTCAAGGA GGGAGTCTTC CCTCTGAGGA 1020
 AAGGGACAC CCCAGGAGG AATCTGAGGA GTCAAACGTC AGCATGGCCA GTTTAGCGGA 1080
 15 AAAGAGGGAC CACCATTCAG CCCACTACAG GGCTTCAGAG GAAGAAGCTG AATATGGAGA 1140
 AGAAATAAAG GGTATCTCAG GCGTCCAGGC CCCTGAGGAC CTGGAGTGGG AGCGCTATAG 1200
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 20 AGAAAGTGAG GAAGAGAGGG GCCTTGAGCC GGGAAAGGGA CCGCATCACA GAGGCAGGGG 1380
 AGGGGAGCCA CGTGCCATATT TCATGTCTGA CACCAGAGAA GAGRAAAGGT TCTTGGGTGA 1440
 AGGACACCCG CGTGTCCAGG AAAACCCAGT GACACAGGCA AGGAGGCAATC CACAAAGTGC 1500
 GTGGAAAGGT GTGACAGAA ATTATCTCAA CTACGGTGAG GAAGGAGGCC CAGGGAAGTG 1560
 GGCAGCAGCG GGAGACCTGC AGGACACTAA AGAAAACAGG GAGGAAGCTA GGTTCAGAA 1620
 25 TAAACAAATG AGCTCCATC ACACAGCTGA AAAGAGGAAG AGATTAGGGG AACTGTTCAA 1680
 CCCATACTAC GACCTCTCTC AGTGGAAAGG CAGCCATTTT GAAAGAAAGG ACAACATGAA 1740
 TGACAAATTT CTCGAGGGTG AGGAGGAAAA TGAGCTGACC TTGACAGAGA AGAATTTCTT 1800
 CCAGAAATAC AACTATGACT GGTGGGAGAA AAAGCCCTTC TCTGAGGATG TGAATCTGGG 1860
 GTATGAGGAG AGAAACCTCG CCAGGGTCCC CAGCTGGAC CTGAAAGGGC AATATGACAG 1920
 30 GGTGGCCCA CTGACACAGC TCCTTCACTA CAGGAAGAAG TCAGCTGAGT TTCCAGACTT 1980
 CTATGATTCT GAGGAGCCGG TGAGCACCCA CCAGGAGGCA GAAATGAAA AGGACAGGGC 2040
 TGACCAAGCA GTCTGACAG AGGACAGGAA AAAAGAACTC GAAAACTTGG CTGCAATGGA 2100
 TTTGAAACTC CAGAAGTAG CTGAGAAATT CAGCCAAAGG GCTGACTGAT CATTGGAGCG 2160
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 35 ACCATTATTA TACCCAGGG CAGAAAGTAG AACTTACTAT TCATTAAATG TTTGACACAA 2280
 TTGGAATTGT CTTTAATTTC TGTGAGATG CTATTGAAAA TGTGAATTGC ATGACTTGTA 2340
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 TCTTTGGAAA AATGTTTGTG TCAGTTGGAA ATAATAAAG ATTCACTGGA GACC 2454

Seq ID NO: C144 DNA Sequence
 Nucleic Acid Accession #: XM_093082.1
 Coding sequence: 93..1988

45 1 11 21 31 41 51
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 AGCCCAACTG TGTATTACAG ACATTGAGGT GGTACCGGTG CCTATCTCT TCTGCTTCTT 180
 GTGGGGCTCT AGCAGCTGTT CTTAGCACCA GTCAGTGGCT CACTGAACAG GAATTTAGTG 240
 50 AGACAAAACT GGAAGCTTCA GCTTTGAAAT TGCTCTATGG AGGCTTAAA GATCCAAAT 300
 GCAAAATACA GAAGCTCAAC TTGCACTTTT CTTTATCTGT AACCGCTGCA AAACCTTCAG 360
 TTGGAATGGT TGGAAATTTG TCTGTTTCT CGGATCATT GGTGCAATCT CATTTTGGCT 420
 ACTGTACAGA CAGTCTTTTC AATGTGATC TTTGTAGCT GCTCTGGCCT TCCACCAAG 480
 TTGCTGTCTG AAGGATTTGT GGGAGTCTTA AGTCCCTTCT ATCAGAAGGG CTGAACTGGG 540
 55 CAGGAAGACT TGAGGCACTG GAGGAGGTTT TGGGGTTGGG GGTGCTTGT CAGCCCGGTG 600
 ACCCAGCATC TCAGGCTGGG GGGCATTTG AAAACTATGG GTCTTTTAGA GACTTGGTGG 660
 ACTTAGAGT CAGGCGAGAA CCAAGCCTGA GAAAGGTGG TATGGATCTC CAGAGACCCA 720
 CCTTACAAAT TGTCTCTCT TGTCCCTCAA ACTATTCTC TTTATTTGAT 780
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 60 ACGTACTGT TGGATCTAAT GTCACTCTCA TCTGCATCTA CACCACACT GTGGCTCCC 900
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 CTCCTTGGGA GAGGGGGAAG TGCCGAGATG TTGAGGCTGT GAAGGCACT CTGATGGAC 1020
 AGCAGGCTGA ACTCCAGATT TACTTTCTC AAGGTGAGCA AGCTGTAGCC ATCGGCAAT 1080
 TTAAGATCG AATACAGGG TCCAAGATC CAGGTAATGC ATCTATCACT ATCTGCAAT 1140
 65 TGCAAGCAGC AGACAGTGGG ATTACATCT GCGATGTTAA CAACCCOCCA GACTTCTCTG 1200
 GCCAAACCA AGCATCCTC AACGTCAATG TGTAGTGAA ACCTTCTAG CCCCTTTGTA 1260
 GCGTTCAAGG AAGACAGAA ACTGGGACA CTATTCCCT TTCTGTCTC TCTGGCTTG 1320
 GAACAGCTTC CCGTGTGAT TACTGGCATA AACTTGAGGG AAGAGACATC GTGCCAGTGA 1380
 AAGAAACTT CAACCAACC ACGGGGATT TGGTCATTGG AATCTGAC AATTTGAAC 1440
 70 AAGTTATTA CAGTGTACT GCCATCAACA GACTTGGCAA TAGTTCTTGC GAATGATC 1500
 TCACCTCTTC ACATCCAGAA GTTGAATCA TGTGTTGGG CTGTATTGGT AGCCGTGTAG 1560
 GTGCCGCCAT CATCTCTCT GTTGTGTGCT TCGCAAGGAA TAAGGCAAAA GCARAGGCAA 1620
 AAGAAAGATA TCTTAAGACC ATCGCGAACC TTGAGCCAAT GACAAAGATA AACCAGGG 1680
 GAGAAAGCGA AGCAATGCCA AGAAGAGAG CTACCCACT AGAAGTAAC CTACCATCTT 1740
 75 CCATTCATGA GACTGGCCT GATACCATCC AAGAACCAGA CTATGAGCA AAGCTACTC 1800
 AGGAGCTGCG CCGAGGCTC GCCCAGGAT CAGAGCTTAT GGCAGTGGCT GACTTTGACA 1860
 TCGAGCTGGA GCTGGAGCCA GAAACGAGT CGGAATTGGA GCCAGAGCCA GAGCCAGAGC 1920
 CAGAGTCAGA GCCTGGGGTT GTAGTTCAGC OCTTAAGTGA AGATGAAAG GAGTGTGTTA 1980
 AGGCATAG 1988

Seq ID NO: C145 DNA Sequence
 Nucleic Acid Accession #: FGENESH predicted
 Coding sequence: 1..1242

1 11 21 31 41 51

5
 10
 15
 20
 25

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| | | | | | | |
| ATGGTGTCG | CAITTTGGAA | GGTCTTCTG | ATCCTAAGCT | GCCTTGCAAG | TCAGGTIAGT | 60 |
| GTGGTGCAAG | TGACCATCCC | AGACGGTTTC | GTGAACGTGA | CTGTGTGATC | TAATGTCACT | 120 |
| CTCATCTGCA | CTACACCCAC | CACCTGTGGCC | TCCCGAGAAC | AGCTTTCCAT | CCAGTGGTCT | 180 |
| TTCTTCATA | AGAAGGAGAT | GGAGCCAATT | TCTTCTCCTT | GGGAGGAGGG | GAAGTGGCCA | 240 |
| GATGTTGAGG | CTGTGAAGGG | CACCTCTGAT | GGACAGCAGG | CTGAACCTCA | GAITTACTTT | 300 |
| TCTCAAGGTG | GACAAGCTGT | AGCCATCGGG | CAATTTAAAG | ATCGAATTAC | AGGGTCCAAC | 360 |
| GATCCAGGTA | ATGCTCTCTAT | CACATCTCTG | CATATGCAGC | CAGCAGACAG | TGGAAATTTAC | 420 |
| ATCTGCGATG | TTAACAACCC | CCCAGACTTT | CTCGGCCAAA | ACCAAGGCAT | CCTCAACGTC | 480 |
| AGTGTGTTAG | TGAACCTTTC | TAAGCCCTTT | TGTAGCGTTC | AAGGAAGACC | AGAACTGGC | 540 |
| CACACTATTT | CCCTTTCCCTG | TCTCTCTGCG | CTTGGAAACAC | CTTCCCTCTG | GTACTACTGG | 600 |
| CATAAACTTG | AGGGAAGAGA | CATCGTGCCA | GTGAAGAAAA | ACTTCAACCC | AACCAACGGG | 660 |
| ATTTTGGTCA | TGGAAATCT | GACAAATTTT | GAACAAGGTT | ATTACCACTG | TACTGCCATC | 720 |
| AACAGACTTG | GCAATAGTTC | CTGCGAAATC | GATCTCACTT | CTTCACTACC | AGAAGTTGGA | 780 |
| ATCATTTGTT | GGCCCTTGAT | TGGTAGCCCTG | GTAGGTGCGG | CCATCATCAT | CTCTGTTGTG | 840 |
| TGCTTCGCAA | GAATAAAGC | AAAAGCAAGG | GCAAAAGAAA | GAATTTCTAA | GACCATCGCG | 900 |
| GAACCTTGAGC | CATAGACAAA | GATAAACCCA | AGGGGAGAAA | GCGAAGCAAT | GCCAGAGAAA | 960 |
| GACGCTACCC | AACTAGAAAT | AACTCTACCA | TCTTCCATTC | ATGAGACTGG | CCCTGATACC | 1020 |
| ATCCAAGAAC | CAGACTATGA | GCCAAAGCCT | ACTCAGGAGC | CTGCCCCAGA | GCCTGCCCCA | 1080 |
| GGATCAGAGC | CTATGCAAGT | GCTTGACCTT | GACATCGAGC | TGGAGCTGGA | GCCAGAAAGC | 1140 |
| CAGTGGGAAT | TGAGGCCAGA | GCCAGAGCCA | GAGCCAGAGT | CAGAGCCTGG | GGTGTAGATT | 1200 |
| GAGCCCTTAA | GTGAAGATGA | AAAGGGAGTG | GTTAAGGCAT | AG | | 1242 |

Seq ID NO: C146 DNA Sequence

Nucleic Acid Accession #: NM_003020.1

Coding sequence: 29..664

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 50

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| TGGGCTACTG | TTTTGGCTGG | CATCTGGATG | GACTCCAGCA | TTTGTCTACA | GCCCCCGBAC | 120 |
| CCCTGACCGG | GTCTCAGAA | CAGATATCCA | GAGGCTGCTT | CATGGTGTTA | TGGAGCAATT | 180 |
| GGGCAATGCC | AGGCCCCGAG | TGGAATATCC | AGCTCACCAG | GCCATGAATC | TTGTGGGCCC | 240 |
| CCAGAGCAAT | GAAGTGGAG | CTCATGAAGG | ACTTCAGCAT | TTGGGTCTCT | TTGGCAACAT | 300 |
| CCCAACATC | GTGGCAGAGT | TGACTGGAGA | CAACATTCCT | AAGGACTTTA | GTGAGGATCA | 360 |
| GGGTACCCCA | GACCCCTCAA | ATCCCTGTCC | TGTTGGAAAA | ACAGATGATG | GATGTCTAGA | 420 |
| AAACAACCCG | GACACTGCG | AGTTCACTCG | AGAGTTCCAG | TTGCACACAG | ATCTCTTTGA | 480 |
| TCCGGAACAT | GACTATCCAG | GCTTGGGCAA | GTGGAACAG | AAACTCTCTT | ACGAGAAGAT | 540 |
| GAAGGGAGGA | GAGAGACGAA | AGCCGAGGAG | TGTCAATCCA | TATCTACRAG | GACAGAGACT | 600 |
| GGATAATGTT | GTTCGAAAGA | AGTCTGTCCC | CCATTTTTC | GATGAGGATA | AGGATCCAGA | 660 |
| GTAAGAGAG | GATGCTAGAC | GAAACCCCA | ATTACCTGTT | AGGCCCTCAG | ATGGCTTAGT | 720 |
| TGCACGTGTA | AATGGAGTCC | CTGTGAATGA | CAGCATGTTT | CTTACATAGA | TAATTATGGA | 780 |
| TACAAAGCAG | CTGTATGTAG | ATAGTGTATT | GTCCTTCAAC | CGATGATCTT | GCTTTTGTCT | 840 |
| AAATTAGAA | AGAGGCTTTT | TTGTTTCTTG | GGTTTTTAAA | ATGTGAATCT | GCAATGATCA | 900 |
| TAAAAATTAA | AATGTGAATG | TCAACAATAA | AAAGCAAGAC | TATGAAGGCG | TCAGATTTCT | 960 |
| TGCAATTTAA | AATGGTGTCT | GAGGTTGTAC | TATTTTGGCC | AAGTCTGTAG | AAAGCTGTCA | 1020 |
| TTTATTTTGG | ATTATGTAGT | TCAATCCAGC | CTTGGGCATT | GTTATACACC | AGTAAAGAGA | 1080 |
| GCTGTACTCA | AGAGGAGGAG | CTGACACATT | TCACCTGGCT | GCTCTTAAAT | AAACATGAAT | 1140 |
| GCAAGCAATTG | GC | | | | | 1152 |

Seq ID NO: C147 DNA Sequence

Nucleic Acid Accession #: NM_024021.2

Coding sequence: 144..806

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 65
 70
 75
 80

| | | | | | | |
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| CTTTGGAAAC | ACTTAATATA | GTCAATATAT | CTTGGAGCTT | TAAAAATTAA | AAGGAGAGAG | 120 |
| ATTGAGGAC | CTTTCTGCT | GCCATGACAA | CCATGCAAGG | AATGGAACAG | GCCATGCCAG | 180 |
| GGGCTGGGCC | TGGTGTGCCC | CAGCTGGGAA | ACATGCGCTG | CATACATTCA | CATCTGTGGA | 240 |
| AAGGATTGCA | AGAGAAGTTC | TTGAAGGGAG | AACCCAAAGT | CCTTGGGGTT | GTGCAAGATC | 300 |
| TGACTGCCCT | GCTGAGCCTT | AGCATGGGAA | TAACAATGAT | GTGTATGGCA | TCTAATACTT | 360 |
| ATGGAAGTAA | CCCTATTTC | GTGTATATCG | GSTACACAAT | TTGGGGGTCA | GTAATGTTTA | 420 |
| TTATTTTCAGG | ATCCTGTGCA | ATTGCAGCAG | GAATTAGAAC | TACAAAGGCG | CTGGTCCGAG | 480 |
| GTAGTCTAGG | AATGAATATC | ACCAGCTCTG | TACTGGCTGC | ATCAGGGATC | TTAATCAACA | 540 |
| CATTTAGCTT | GGGTTTAT | TCATTTCCATC | ACCTTTACAG | TAACACTAT | GGCAACTCAA | 600 |
| ATAATTTGCA | TGGGACTATG | TCCATCTTAA | TGGGTCTGGA | TGGCATGGTG | CTCCTCTTAA | 660 |
| GTGTGCTGGA | ATTCTGCTAT | GCTGTGTCCC | TCCTGCTCTT | TGGATGTAAA | GTGCTCTGTT | 720 |
| GTACCCCTCG | TGGGGTTGTG | TTAATTTCTG | CATCACATTC | TCACATGGCA | GAAACAGCAT | 780 |
| CTCCACACCC | ACTTAATGAG | GTTTGGAGCC | ACCAAAGGAT | CAACAGACAA | ATGCTCCAGA | 840 |
| AATCTATGCT | GACTGTGACA | CAAGAGCCTC | ACATGAGAAA | TTACCAATAT | CCAACCTTGA | 900 |
| TACTGATAGA | CTGTGTGATA | TTATTATTAT | ATGTAATCCA | ATTATGAATC | GTGTGTGTAT | 960 |
| AGAGAGATAA | TAAATTCAAA | ATTATGTTCT | CATTTTCTTC | CCTGGAACCT | AATTAACCTAT | 1020 |
| TTCACTGGCT | CTTTATCGAG | AGTACTAGAA | GTTAAATTAA | TAAATATGTC | ATTTAATGAG | 1080 |
| GCAACAGCAC | TTGAAAGTTT | TTCAATTCATC | ATAAGAATCT | TATATAAAGG | CATTACATTTG | 1140 |
| GCAATTAAGG | TTTGGAGACA | GAAGAGCAAA | AAAAAGATAT | TGTTAAATG | AGGCTCCCAT | 1200 |
| GCAAAACACA | TACTTCCCTC | CCATTTATTT | AACCTTTTTC | TTCTCTTACC | TATGGGGACC | 1260 |
| AAAGTCTTTT | TTCCTTCAGG | AAGTGGAGAT | GCAATGGCCT | CTCCCTTCTC | CTTTTCTCTT | 1320 |
| CTCCTGCTTT | TCCTTCCCCA | TAGAAAGTAC | CTTGAAGTAG | CACAGTCCGT | CCTTGCAATG | 1380 |
| GCAAGAGCTA | TCATTTGAGT | AAAAGTATAC | ATGGAGTAAA | AATCATATTA | AGCATCGAGT | 1440 |
| TCACCTTATA | TTTCTATATT | CATCTTCTTC | CTTCTCCCTC | TCCCACTCTT | TACTGGGCAT | 1500 |
| AATTATATCT | TAAATCAATA | TGGAAATGTG | CAACATATGG | TATTTGTATA | ATACGTTTGT | 1560 |
| TTTTATTGCA | GAGCAAAAT | AAATCAATTT | AGAAGCAATA | AAAAAATAAA | AAAAAATAAA | 1619 |

Seq ID NO: C148 DNA Sequence
Nucleic Acid Accession #: NM_002091.1
Coding sequence: 56..502

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      |      |      |      |      |      |
10     AGTCTCTGCT CTCTCCAGCC TCTCCGGGCG GCTCCAAGGG CTTCCTGTGG GGACCATGGG 60
      CGGCAGTACG CTCCCGCTGG TCTGCTGCGC GCTGGTCTCT TGCTTAGGCG CCCGGGGGCG 120
      AGCGGTCCCG CTGCTGTGCG GCGGAGGGAC CGTGTGACCC AAGATGTACC CGCGCGGCAA 180
      CCACTGGGCG GTGGGGCACT TAATGGGGAA AAGAGGCACA GGGGAGTCTT CTCTGTITTC 240
      TGAGAGAGGG AGCCTGAAGC AGCAGCTGAG AGAGTACATC AGGTGGGAAG AAGCTGCAAG 300
      GAATTTGCTG GGTCTCATAG AAGCAAAAGG GAACAGAAAC CACCAGCCAC CTCACCCCAA 360
      GGCTTGGGCG AATCAGCAGC CTCTGTGGGA TTCAGAGGAT AGCAGCAACT TCAAAGATGT 420
15     AGGTTCAAAA GGCAAAGTTG GTAGACTCTC TGCTCCAGGT TCTCAACGTG AAGGAAGGAA 480
      CCCCCAGCTG AACCAGCAAT GATAATGATG GCTCTCTCTA AAAGAGAAAA ACAAAACCCC 540
      TAAGAGACTG AGTTCTGCAA GCATCAGTTC TACGGATCAT CAACAAGATT TCCTTGTCGA 600
      AATATTGTA TATTCTGTGA TCTTTCATCC TTGACTAAAT TCGTGATTIT CRAAGCAGAT 660
      CTCTGTGTTT AAACCTGTGT GCTGTGAACA ATTGTGAAA AGAGTCTTCC AATTAATGCT 720
20     TTTTATATC TAGGCTACCT GTTGGTTAGA TTCAGGCCCC CGAGCTGTTA CCATTACAAA 780
      TAAAAGCTTA AACACAT 797

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Seq ID NO: C149 DNA Sequence
Nucleic Acid Accession #: NM_012253.1
Coding sequence: 203..1045

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25     1      11      21      31      41      51
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      |      |      |      |      |      |
30     GATTGCTCT GGCAGCAGCT GTGGGTGGCG CGCTGACAC CGAGTCTTAG CTAGGCGCTC 60
      ACAGAAATAG CGCTCCCTCC CTCCCCCTTC TCTGTCCCCC GCTCTCTGCT CACCCCGGCC 120
      CACTCCAGCG GGCACCTTGA GGGATTCCTT CTCTGGGGCG CTCTGAGCA GCACAGCCGG 180
      CCTCATTCGG GGCACCTGCA GTATGGATCT CCAAGGAAGA GGGGTCCCA GCATCGACAG 240
      ACTTCGAGTT CTCTGTATGT TGTTCATAC AATGGCTCAA ATCATGGCAG AACAGAAAGT 300
      GGAATATCTC TCAGGCTCTT CCACTAACCC TAAAAAAGAT ATATTGTGG TGCGGGAATA 360
35     TGGGACGAGG TGTCTCATGG CAGAGTTTGC AGCCAAATTT ATTGTACCTT ATGATGTGTG 420
      GGCCAGCAAC TACGTAGATC TGATCACAGA ACAGGCCBAT ATGCAATTGA CCGGGGGAGC 480
      TGAGGTGAAG GGCCTGCTGT GCCACAGCCA GTCCGAGCTG CAAGTGTCTT GGTGGATCTG 540
      CGCATATGCA CTCAAAATGC TCTTTGTAAA GGAAGGCCAC AACATGTCCA AGGGACCTGA 600
      GGCGACTTGG AGGCTGAGCA AAGTGCAGTT TGTCTAGCAC TCCTGGGAGA AAACCCACTT 660
40     CAAGAGCGCA GTCACTGTCT GGAAGCACAC AGCCAACTCG CACCACTCTT CTGCTTGGT 720
      CACCCCGGCT GGAAGTCTCT ATGAGTGTCA AGCTCAACAA ACCATTTCAC TGGCTCTAG 780
      TGATCCGCGA AAGAAGGTCA CCAATGCTCT GTCTGGGGTC CACATCCAAC CTTTTGAAT 840
      TATCTGAGAT TTTGTCTCTA GTGAAGAGCA TAAATGCCCA GTGGATGAGC GGGAGCAACT 900
      GGAAGAAACC TTGCCCTCTA TTTTGGGGCT CATCTTGGGC CTCTGATCA TGGTAACACT 960
45     CGGATTTTAC CAGTCCACC ACAAAATGAC TGCCAAACAG GTGCAGATCC CTCGGGACAG 1020
      ATCCAGTAT AAGCAGATGG GCTAGAGGCC GTTAGGCAGG CACCCCTAT TCCTGCTCCC 1080
      CCAACTGGAT CAGGTAGAAG AACAAAGCA CTTTTCATC TTGTACAGA GATACACCAA 1140
      CATAGCTACA ATCAAAACAG CCTGGGTATC TGAGGCTTGC TTGGCTTGTG TCCATGCTTA 1200
      AACCCACGGA AGGGGGAGAC TCTTTCGGAT TTGTAGGGTG AATAGCAAT TATTCTCTCC 1260
50     ATGCTGGGGA GGAAGGGAGG AGGCTCTCAG ACAGCTTTCG TGCTCATGGT GGCTTGGCTT 1320
      TGACTCTCCA AAGAGCAATA AATGCCACTT GGAGCTGTAT CTGGCCCAA AGTTTAGGGA 1380
      TTGAAACAT GCTCTTTTGA GGAGGAACCC CCTTTAGGTT CAGAAGATA TGGGTGCTT 1440
      TGCTCCCTTG GACACAGCTG GCTTATCTTA TACAGTTGTC AATGCACACA GAATACAACC 1500
      TCATGCTCCC TGACAGCAAG CCGCTGAAAG TGATTCATGC TCTGCGCAG CATTCTGCAT 1560
55     GTTAGTATG TGTCTTGGGA ATGTTTCACT GCTACCCGCA TCCAGCGACT GCAGCACCAG 1620
      AAAACGACTA ATGTAATCAT GCAGATTGT TTGACTTCT TCCTGTGCCA GGTCCAAGTC 1680
      GGGGAGCTG AAGATCAAT CTGTGTGAGT CTGTTTTC AATGAATA AAACACACTA 1740
      TTCTCTGCG 1749

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Seq ID NO: C150 DNA Sequence
Nucleic Acid Accession #: NM_003226.1
Coding sequence: 2..226

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65     1      11      21      31      41      51
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      |      |      |      |      |      |
      GATGCTGGGG CTGGTCTTGG CCTGCTGTCT CTCAGCTCT GCTGAGGAGT ACCTGGGCTC 60
      GTCTGCAAAC CAGTGTGCCG TGCCGGCCAA GGACAGGGTG GACTGGGGCT ACCCCCATGT 120
      CACCCCAAG GAGTGCAACA ACCGGGGCTG CTGCTTGAAC TCCAGGATCC CTGGAGTGCC 180
70     TTGGTGTTTC AAGCCCTTGA CTAGGAAGAC AGAATGCACC TTCTGAGGCA CTCCAGCTG 240
      CCGCTGGGAT GCAGGCTGAG CACCCCTGCG CGCTGTGAT TGTGCGCAG CACTGTTCAT 300
      CTCAGTTTTT CTGCTCCCTT GCTCCCGGCA AGCTTCTCTG TGAAGTTCA TATCTGGAGC 360
      CTGATGTCTT AACGAATAAA GGTCCCATGC TCCACCCG 398

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Seq ID NO: C151 DNA Sequence
Nucleic Acid Accession #: NM_002993.1
Coding sequence: 64..408

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80     1      11      21      31      41      51
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      |      |      |      |      |      |
      GGCACGAGCC AGTCTCCGGG CCTCCACCCA GCTCAGGAAC CCGCAALCC TCTCTGACC 60
      ACTATGAGCC TCCCGTCCAG CGCGCGGCC CGTGTCCCG GTCTTTCGG GTCTCTGTGC 120
      GCGCTGCTCG CGCTGCTGCT CCTGCTGACB CCGCGGGGG CCTCTGCCAG CGCTGTGCT 180
      GTCTCTGCTG TGTGACAGA GCTGCTTGC ACTGTGTTAC CGGTACGCT GAGAGTAAAC 240

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5
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CCCCAAACGA TTGGTAAACT GCAGGTGTTT CCCGAGGCC CGCAGTGCTC CAAGGTGGAA 300
GCGTAGCCTT CCGTGAAGAA CCGGAAGCAA GTTTGTCTGG ACCCGGAAGC CCCTTTTCTA 360
AAGAAAGTCA TCCAGAAAT TTTGGACAGT GBAACAAGA AAACTGAGT AACAAAAAG 420
ACCATGATC ATAAAAATTG CAGTCTTCA GCGGAGCAGT TTTCTGGAGA TCCCTGGACC 480
CAGTAAGAA ATAGAAAGAA GGTGGTTT TTTCCATTT CTACATGGAT TCCCTACTTT 540
GAAGAGTGTG GGGGAAAGCC TACGCTTCTC CCTGAAGTTT ACAGCTCAGC TAATGAAGTA 600
CTAATATAGT ATTTCCACTA TTTACTGTAA TTTTACCTGA TAAGTTATTG AACCCITTGG 660
CAATTGACCA TATGTGTAGC AAGAARTCAC TGGTTATTAG TCTTTCAATG AATATTGAAT 720
TGAAGATAAC TATTTGATTT CTATCATACA TTCTTTAAAG TCTTACCGAA AAGGCTGTGG 780
ATTTGATAGT GAAATAAGT TTTATTAGTG TGCTGTGAG GAGGGTATCC TGTGTCTCTT 840
ACTCCTCTCT CTATATAAAT AGGAATATTT TTAGTTCTGT TTTCTTGGGG AATATGTTAC 900
TCTTTACCCT AGGATGCTAT TTAAGTTGTA CTGTATTAGA ACACTGGGTG TGTCATACCG 960
TTATCTGTGC AGAATATATT TCCTTATTCA GAATTTCTAA AAATTTAAGT TCTGTAAGGG 1020
CTAATATATT CTCTTCTAT GGTTTTAGAT GTTTGATGTC TTCTTAGTAT GGCATAATGT 1080
CATGATTTC TCAATTAAC TTAGTTTGT ATGCTATTTT TTAATATAG GATGACTATA 1140
ATTCCTGTCA CTAATATATC ACTTTAGATA GATGAAGAAG CCCAAACACA GATAAATTCC 1200
TGATTGCTAA TTTACATAGA AATGATTTCT CTGTGTTTTT TAAATAAAG CAAATTAAC 1260
AATGATCTGT GCTCTGCAAA GTTTTGAAAA TATATTGAA CAATTTGAAT ATAAATTCAT 1320
CATTTAGTCC TCAAAATATA TACAGCATTG CTAAGATTTT CAGATATCTA TTGTGGATCT 1380
TTTAAAGGTT TGAACCATTT TGTATGAGG AATTATACAT GTATCAGATT CACTATATTA 1440
AAATGCACTT TTATTTTCTT CCGTGTGTC ATGTTGTTT TTGTTACTTG TATTGTCAAT 1500
TGGAGAAACA ATAAAGATT TCTAAACCAA AAAAAA AAAA 1547
  
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25
 30

Seq ID NO: C152 DNA Sequence
 Nucleic Acid Accession #: NM_005242.2
 Coding sequence: 148..1341

35
 40
 45
 50
 55

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1 11 21 31 41 51
| | | | |
CGGCCGCCCC TGGGGAGGCG CGCAGCAGAG GCTCGATTCC GGGGCAGGTG AGAGGCTGAC 60
TTCTCTCGG TGCTTCAGT GGAGCTCTGA GTTTCGAATC GGTGGCGGGG GATTCCCGGC 120
GCGCCCGGGG TCGGGGCTTC CAGGAGGATG CCGAGCCCCA GCGGGGCGTG GCTGCTGGGG 180
GCGCCCATCC TGCTAGCAGC CTCTCTCTCC TGCACTGGCA CCATCCCAAG AACCAATAGA 240
TCTCTTAAAG GAAGAAGCCT TATTGGTAAG GTTGATGGCA CATCCCAAGT CACTGGAAAA 300
GGAGTTACAG TTGAACAGCT CTTTCTGTG GATGAGTTT CTGCTCTGT CTTCACTGGA 360
AAACTGACCA CGTCTTCTCT TCCAATGTC TACACAATTG TGTGTTGGGT GGGTTTGCCA 420
AGTAACGGCA TGGCCCTGTG GGTCTTCTTT TCCGAACCTA AGAAGAAGCA CCCTGCTGTG 480
ATTTACATGG CCAATCTGGC CTGCTCTGAC CTCTCTCTCT TCATCTGGTT CCCTTGAGG 540
ATTGCTATC ACATACATGC CAACAACCTG ATTTATGGGG AAGCTCTTTG TAATGTGCTT 600
ATTGCTTTT TCTATGGCAA CATGACTGTT TCCATCTCT TCATGACCTG CCTCAGTGTG 660
CAGAGTATT GGTCTCTGTT GAACCCCATG GGGCACTCCA GGAAGAAGGC AAACATTGCC 720
ATTGCTATC CCCTGGCAAT ATGGCTGCTG ATTCTGCTGG TCACCATCCC TTTGTATGTC 780
GTGAAGCAGA CCACTCTTAT TCCGCTGCTG AACATCACGA CCTGTCTAGA TGTGTTGCTT 840
GAGCAGCTCT TGGTGGGAGA CATGTTCAAT TACTTCTCT CTCTGGCCAT TGGGGTCTTT 900
CTGTTCCGAG CCTTCTCTAC AGCCTCTGCC TATGTGCTGA TGATCAGAAAT GCTGCGATCT 960
TCTGCCATGG ATGAACATCT AGAGAAGAAA AGGAAGAGGG CCATCAAACT CATGTGCTCT 1020
GTCTGTCGCA TGTACCTGAT CTGCTTCACT CCTAGTAACC TTCTGCTTGT GGTGCAATTAT 1080
TTCTGATTA AGAGCCAGGG CAGAGCCCAT GTCTATGCCC TGTACATTGT AGCCCTCTGCT 1140
CTCTCTACCC TTAACAGCTG CATCGACCCC TTTGCTTATT ACTTTGTTTC ACATGATTTT 1200
AGGGATCAGT CAAAGAACGC TCTCTCTTGC CGAAGTGTCC GCACCTGTAA GCAGATGCAA 1260
GTATCCCTCA CCTCAAGAAA AACTCCAGCT CTACTCTTTC AAGTTCAACC 1320
ACTGTTAAGA CCTCTATATT AGTTTTCAG GTCTCTCAGT GGAATTTGCA CAGTAGGATG 1380
TGAACCTGT TAAATGTTAT GAGGACGTGT CTGTTATTTT CTAATCAAAA AGGTCTCACC 1440
ACATACCACC G 1451
  
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60
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Seq ID NO: C153 DNA Sequence
 Nucleic Acid Accession #: NM_003469.2
 Coding sequence: 92..1945

70
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1 11 21 31 41 51
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GAAACGGCCC GAGAAGCTCG CCCGAGAAC GGGGAGGAAT ATGCTGTGGA GCTCCTCTGC 60
CATATAAACA AAAAGAGGAA ATCTTTCAA CATGGCTGAA GCAAGAGACC ACTGGCTTGG 120
AGCAGCCCTC TCTCTTATCC CTTTAATTTT CTTCTCTCTT GGGGCTGAG CAGCTTCATT 180
TCAGAGAAAC CAGCTGCTTC AGAAGAAGCC AGACCTCAGG TTGGAATAATG TCCAAAAGTT 240
TCCCAGTCTT GAAATGATCA GGGCTTTGGA GTACATAGAA AACCTCCGAC AACAGCTCA 300
TAAGGAAGAA AGCAGCCGAG ATTATAATCC CTACCAAGGT GTCTCTGTCC CCCCTCAGCA 360
AAAAGAAAAT GGCATGAAA GCCACTTGCC CAGAGGGGAT TCACTGAGTG AAGAGACTG 420
GATGAGAATA ATACTCGAAG CTTTGAGACA GGCCTGAAAAT GAGCTTCAGT CTGCAOCCAA 480
AGAAAAAAG CCCTATGCCCT TGAATTCAAG AAGAACTTTT CCAATGGACA TGAGTGAATG 540
TTATGAGACA CAGCTGAGGC CAGAAAGAAA GCCTAAGCAC ATGCAATTCC CTCTATGTA 600
TGAAAGAAAT TCAGGGATTA ACCCCTTTAA ACGCACAAAT GAAATAGTGG AGGAACAATA 660
TACTCTTCAA AGCCTTGCTA CATTTGAATC TGTCTTCCAA GAGCTGGGGA AACTGACAGG 720
ACCAACACAC CAGAAACGTC AGAGGATGGA TGAGGAGCAA AAACCTTATA CGGATGATGA 780
AGATGATATC TACAAGGCTA ATAACATTGC CTATGAAGAT GTGGTCCGGG GAGAAGACTG 840
GAACCCAGTA GAGGAGAAAA TAGAGAGTCA AACCCAGGAA GAGGTGAGAG ACAGCAAGAA 900
GAATATAGGA AAAATGAAC AAATCAACGA TGAGATGAAA CGCTCAGGGC AGCTTGGCAT 960
CCAGGAAGAA GATCTTCCGA AAGAGAGTAA AGACCAACTC TCAGATGATG TCTCCAAAGT 1020
AATTGCTCAT TTGAAGAGGT TAGTAAATGC TGCAGGAAGT GGGAGGTTAC AGAATGGGCA 1080
AATGCGGGA AGGCCCACTA GGTCTTTTGA GAACCTCTTT GATCTCTCAG CTATTATCA 1140
GCTGATGAA ATCTCAAGAT ATTACAGAT ACCCCAGAAA GACTTAATTG AGATGCTCAA 1200
AATGCGGAG AGCCGAATG GATCAGTGA ACCCGAGCGG GAGCTTGACC TTCTGTGTA 1260
CCTAGATGAC ATCTCAGAGG CTGACTTAGA CCATCCAGAC CTGTTCCAAA ATAGGATGCT 1320
  
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| | | | | | | | |
|----|---|------------|------------|------------|------------|-------------|------|
| 5 | CTCCAGAGT | GGCTACCTA | AAACACCTG | TCGTGCTGG | ACTGAGGCC | TACCAGACGG | 1380 |
| | GCTCAGTGT | GAGGATATT | TAAATCTTT | AGGGATGGG | AGTGCAGCA | ATCAGAAAAC | 1440 |
| | GTCGTATTT | CCCATCCAT | ATAACAGGA | GAAAGTCTG | CCAAGGCTC | CTTATGGTGC | 1500 |
| | TGGAAGATCT | AGATCBAACC | AGCTTCCCA | AGCTGCTGG | ATTCCACATG | TTGAAAACAG | 1560 |
| | ACAGATGGCA | TATGAAAACC | TGAACBACAA | GGATCAAGAA | TTAGGTGAGT | ACTTGGCCAG | 1620 |
| | GATGCTAGTT | AAATACCTTG | AGATCATTA | TTCAAAACCA | GTGAAGCGAG | TTCTTGGTCA | 1680 |
| | AGGCTCATCT | GAAGATGACC | TGCAGGAAGA | GGAAACAATT | GAGCAGGCCA | TCAAAGAGCA | 1740 |
| | TTTGAATCAA | GGCAGCTCTC | AGGAGACTGA | CAAGCTGGCC | CCGGTGAGCA | AAAGGTTCCT | 1800 |
| 10 | TGTGGGGCCC | CCGAAGAATG | ATGATACCCC | AAATAGGCAG | TACTGGGATG | AAGATCTGTT | 1860 |
| | AATGAAGGTG | CTGGAATACC | TCAATCAAGA | AAAGGCAGAA | AAGGGAAGGG | AGCATATTGC | 1920 |
| | TAAGAGAGCA | ATGGAATAA | TGTAAAGTGC | TTTCATTAA | TACCTACTT | TCATTCTCTC | 1980 |
| | CACCCCAAGC | AAATCCCAAC | ATTTCTCTTC | AGTGTGTTGA | CTTCTATCCT | GTTAACACTG | 2040 |
| | TAATATCTTT | AAATGATGTA | CAGGCAGATG | AAACCAAGTC | ACTGGGGAGT | CTGCTTCATT | 2100 |
| 15 | TCCTCTGAGC | TGTTATCTTG | TGTATGGATA | TGTGTAAGTG | TTATGACTCC | TTGATAAAAA | 2160 |
| | ATTTATTATG | TCCATTATTC | AAGAAAGATA | TCTATGACTG | TGTTTAATAG | TATATCTAAT | 2220 |
| | GGCTGTGGCA | TTGTGTAGTC | TCACATATGA | TAAAAAAGTG | TCCTATAAAT | CTATTGAAAG | 2280 |
| | TTTTTAATAT | TTATTGAATT | ATTTTGTTAC | TGTCGTAGC | GTTTGTGGA | GTACTGSAAC | 2340 |
| | AAAAAATAA | AGCATTATAA | ATATA | | | | 2365 |
| 20 | Seq ID NO: C154 DNA Sequence Nucleic Acid Accession #: NM_030955 Coding sequence: 327..5108 | | | | | | |
| 25 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | GAATTCGGGG | AGCGGGCGGG | CTGCGAGGCC | GCGGGGCATG | CGGGAGGCGG | AGGGGTGGGA | 60 |
| | CGGGGTGGGT | GCGCCCATTC | CACACCCGCC | GAAAGCGGAC | ACTGTCTAGT | GAATCACTCC | 120 |
| | CCCTTTAGGA | GGAGGGGAGG | GGAAAGAGTG | TCTAGCTAAT | TTCTGCTTAA | AAAAGCACAG | 180 |
| 30 | GAGATCGCGG | GTACGCTTTG | CAGTCGCTGC | CTTCTCGCGC | CTGACCATGC | ACCCCTGCAT | 240 |
| | CTTCTGCTG | GCGCCAGCGG | AGCGCTTTAT | TTCTGGAGCT | GAGGGCTAAA | ACTTTTTTCA | 300 |
| | CTTTCTCTCT | CCTCAACATC | TGAATCATGC | CATGTGCCCA | GAGGAGCTGG | CTTGCAAAAC | 360 |
| | TTTCTGCTGT | GCTCTAGCTC | CTTAACCTTG | GCGGCTTTTG | CTATGGGAGA | CAGCCTCAGC | 420 |
| | CAGGCCCGGT | TGCTTCCCG | GACAGGAGGC | AAGAGCATTT | TATCAGGGGC | CTGCCAGGAT | 480 |
| 35 | ACCACGTGGT | GGGTCCAGTC | CGAGTAGATG | CCAGTGGGCA | TTTTTTGTCA | TATGSCCTTC | 540 |
| | ACTATCCCAT | CACGAGCAGC | AGGAGGAAGA | GAGATTGGA | TGGCTCAGAG | GACTGGGTGT | 600 |
| | ACTACAGAT | TTCTCACGAG | GAGAAGGACC | TGTTTTTAA | CTTGAAGGTC | AATCAAGGAT | 660 |
| | TTCTTTCCAA | TAGCTACATC | ATGGAGAAGA | GATATGGGAA | CCTCTCCCAT | GTTAAGATGA | 720 |
| | TGGCTTCCCT | TGCCCCCTCT | TGCCATCTCA | GTGACACGGT | TCTACAGCAG | GGCACCAGAG | 780 |
| 40 | TTGGGACGGC | AGCCCTCAGT | GCCTGCCATG | GACTGACTGG | ATTTTTCCAA | CTACCCATG | 840 |
| | GAGACTTTTT | CATTGAACCC | GTGAGAGAGC | ATCCACTGGT | TGAGGGAGGG | TACCAACCGC | 900 |
| | ACATCGTTTA | CAGGAGGCGC | AAAGTTCAG | AAACCAAGGA | GCCACCTGT | GGATTAAAGG | 960 |
| | ACAGATTTAA | CATCTCCAG | AAGCAAGAGC | TATGGCGGGA | GAAGTGGGAG | AGGCACAACT | 1020 |
| | TGCCAAGCAG | AAGCCTCTCT | CGCGTTCCCA | TCAGCAAGGA | GAGTGGGGTG | GAGACACTGG | 1080 |
| 45 | TGGTGGCCGA | CACAAAGATG | ATTGAATACC | ATGGAGTGA | GAATGTGGAG | TCTTACATTC | 1140 |
| | TCACCATCAT | GCACATGGTC | ACTGGGTGT | TCCATAACCC | AAGCATTGGC | AATGCAATTC | 1200 |
| | ACATTGTTGT | GGTTCGGCTC | ATTCTACTCG | AAGAAGAAGA | GCAAGGACTG | AAAATAGTTC | 1260 |
| | ACCATGACGA | AAAGCACTG | TCTAGCTTCT | GCBAGTGGCA | GAAGAGTATC | AATCCCAAGA | 1320 |
| | GTGACCTCAA | TCTGTTCAT | CACGACGTGG | CTGTCTCTCT | CACCAAGAAG | GACATCTGTG | 1380 |
| 50 | CTGCTTTCAA | TGCCCCCTGC | GAGACCCCTG | GCCTGTCTCA | CCTTTCAGGA | ATGRTGCAGC | 1440 |
| | CTCACCGCAG | TTGTAACATC | AATGAAGATT | CGGAGCTGCC | TCTGGCTTTC | ACAATTGCCC | 1500 |
| | ATGAGCTAGG | ACACAGCTTC | GGCATCCAGC | ATGATGGGAA | AGAAATGAC | TGTGAGCCTG | 1560 |
| | TGGGACAGCA | TCCGTACATC | ATGTCGCCGC | AGCTCCAGTA | CGATCCCACT | CGCTGTGATC | 1620 |
| | GGTCCAGATG | CAGCGAGGAG | TACATCACCC | GCTTCTTGGA | CGAGGGCTGG | GGGTCTGTGC | 1680 |
| 55 | TTGATGACAT | ACCTAAAAAG | AAAGGCTTGA | AGTCCAAAGT | CATTGCCCCC | GGAGTGAATC | 1740 |
| | ATGATGTTCA | CACCACTGTC | CAGCTACAAT | ATGGACCCAA | TGCTACCTTC | TGCCAGGAAG | 1800 |
| | TAGAAAACGT | CTGCCAGACA | CTGTGGTGCT | CGTGAAGGG | CTTTGTTCGC | TCTAAGCTGG | 1860 |
| | ACGCTGCTGC | AGATGGAAC | CAATGTGGTG | AGAAGAAGTG | GTGTATGGCA | GCCAGAGTGA | 1920 |
| | TCACAGTGGG | GAAGAAACCA | GAGAGCATTC | CTGGAGGCTG | GGGCTCGCTG | TCACCTTGGT | 1980 |
| 60 | CCCACTGTTT | CAGGACCTGT | GGGGCTGGAG | TCCAGAGCGC | AGAGAGGCTC | TGCAACACCC | 2040 |
| | CCGAGCCAAA | GTTTGGAGGG | AAATATTGCA | CTGGAGAAAG | AAAACGCTAT | CGCTGTGBCA | 2100 |
| | ACGTCCACCC | CTGTGCTCA | GAGGCACCAA | CATTTCGBCA | GATGCACTGC | AGTGAATTTC | 2160 |
| | ACACTGTTTC | CTACAGAAT | GAACTCTACC | ACTGGTTTCC | CATTTTAAAC | CCAGCACATC | 2220 |
| | CTGTGTAGCT | CTACTGCCGA | CCCATAGATG | GCCAGTTTTC | TGGAATAATG | CTGGATGCTG | 2280 |
| 65 | TCATTGATGG | TACCCCTTGC | TTTGAAGGCG | GCAACAGCAG | AAATGTCTGT | ATTAATGGCA | 2340 |
| | TATGTAAGAT | GGTTGGCTGT | GACTATGAGA | TGATTCCTAA | TGCCACCGAG | GATCGCTGGC | 2400 |
| | GTGTGTGCTT | GGGAGATGGC | TCTTCTGCTC | AGACTGTGAG | AAAGATGTTT | AAGCAGAGGG | 2460 |
| | AAGGATCTGG | TTATGTTGAC | ATTGGCTTCA | TTCCAAAAGG | AGCAAGGGAC | ATAAGAGTGA | 2520 |
| | TGGAATTTGA | GGGAGCTGGA | AACTTCTGG | CCATCAGGAG | TGAAGATCCT | GAAAAATATT | 2580 |
| 70 | ACCTGAATGG | AGGGTTTATT | ATCCAGTGGG | ACGGGAACCT | TAGCTGCGCA | GGGACTGTCT | 2640 |
| | TTCACTATGA | CAGGAAGGGA | GACCTGGAAA | AGCTGATGGC | CACAGGTCCC | ACCAATGAGT | 2700 |
| | CTGTGTGGAT | CCAGCTTCTA | TTCCAGGTGA | CTAACCTTGG | CTTCAAGTAT | GAGTACACAA | 2760 |
| | TCAGGAAGA | TGCGCTTGAC | AATGATGTTG | AGCAGATGTA | CTTCTGGCAG | TACGGCCACT | 2820 |
| | GGACAGAGTG | CAGTGTGAOC | TGCGGGACAG | GTATCCGCTG | CCAAACTGCC | CATTGCATAA | 2880 |
| 75 | AGAAGGGCCG | CGGAGTGGTG | AAAGCTACAT | TCTGTGACCC | AGAAACACAG | CCCAATGGGA | 2940 |
| | GACAGAAGAA | GTGCCATGAA | AAGGCTTGTG | CACCCAGGTC | GTGGGCAGGG | GAGTGGGAAG | 3000 |
| | CATGCTCGGC | GACATGCGGG | CCCCACGGGG | AGAAGAAGCG | AAACCTGCTG | TGCATCCAGA | 3060 |
| | CCATGGCTCT | TGACGAGCAG | GCTCTCCCGC | CCACAGACTG | CCAGCACCTG | CTGAAGCCCA | 3120 |
| | AGACCTCTCT | TTCTGCAAC | AGAGACATCC | TGTGCCCTCT | GGACTGGACA | GTGGGCAACT | 3180 |
| 80 | GGAGTGAGTG | TTCTGTTTCT | TGTGGTGGTG | GAGTGGGAT | TGCTAGTGTG | ACATGTGCCA | 3240 |
| | AGAACCATGA | TGAACCTTGC | GATGTGACAA | GGAAACCCAA | CAGCCGAGCT | CTGTGTGGCC | 3300 |
| | TCCAGCAATG | CCCTTCTAGC | CGGAGAGTTC | TGAACCCAAA | CAGAGGCACT | ATTTCCATAG | 3360 |
| | GAAAAAACCC | ACCAACACTA | AAGCCCGTCC | CTCCACCTAC | ATCCAGGCCC | AGAAATGCTGA | 3420 |
| | CCACACCCAC | AGGCCCTGAG | TCTATGAGCA | CAAGCACTCC | AGCAATCAGC | AGCCCTAGTC | 3480 |
| | CTACCAAGGC | CTCCAAAGAA | GGAGACCTGG | GTGGGAACCA | GTGGCAAGAT | AGCTCAACCC | 3540 |

AACCTGAGCT GAGCTCTCGC TATCTCATTT CCACTGGAAG CACTTCCCAG CCCATCCTCA 3600
 CTTCCCAATC CTTGAGCAAT CAGCCAAATG AGGAAAATGT TTCCAGTTCA GATACTGGTC 3660
 CTACCTCGGA GGGAGGCCCT GTAGCTACAA CAACAAGTGG TTCTGGCTTG TCATCTTCCC 3720
 GCAACCCCTAT CACTTGGCCT GTGACTCCAT TTTACAATAC CTTGACCAAA GGTCCAGAAA 3780
 5 TGGAGATTCA CAGTGGCTCA GGGGAAGAAA GAGAACAGCC TGAGGACAAA GATGAAAGCA 3840
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 10 CACCACAGAT TGAGGGGAGT GTTACTGAAA AGCCAGCCAA CACTCTGCTC CCTCTGGGAG 4080
 GAGACCAAGT GCCAGAACCC TCAGGAAAGA CGGCAAACCG TAACCACTG AACTTCCAA 4140
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 TGATTACTGA GGGCTTTTGG CTAAATGCTT CCAATTACAA GCAGCTCACA AACGCCACG 4260
 GCTCTGCACA CTGATCTGTC GGAACTGGA GCGAGTGCTC CACCACATGT GGCCTGGGG 4320
 15 CCTACTGAAA AAGGGTGGAG TGCAACACCC AGATGGATTC TGACTGTGCG GCCATCCAGA 4380
 GACCTGACCC GGCAGAACCC TGCCACCTCC GTCCCTGTGC TTGCTGAAA GTGGGAAACT 4440
 GGAGCAAGTG CTCAGAACAC TGCACTGGGG GCTTCAGAT ACGCAGATT CAGTGGCTGG 4500
 ACAGCCGGGA CCACCGGAAC CTGAGGCCAT TTCCTGCCA GTTCTGGCC GGCATTCTTC 4560
 20 CCCCATTGAG CATGAGCTGT AACCCGGAGC CCTGTGAGGC GTGGCAGGTG GAGCCTTGA 4620
 GCCAGTGCTC CAGGTCTCTG GAGGTGGAG TTCAGGAG AGGAGTGTTT TGTCCAGGAG 4680
 GCTCTGTGA TTGACAAAAA AGACCCACAT CCACCATGTC TTGCAATGAG CACCTGTGCT 4740
 GTCACTGGGC CACTGGGAAC TGGGAOCTGT GTTCCACTTC CTGTGAGGT GGCCTTCAGA 4800
 AGAGGATTGT CCAATGTGTG CCCTCAGAGG GCAATAAAA TGAAGACCAA GACCAATGTC 4860
 25 TATGTGATC CAACCCGAGA CCTCCAGAT TCACAAATAT CAACAGCAG GCCTGCAAGA 4920
 AAGGTGCGGA TTTACTTTGC ACTAAGGACA AACTGTCAGC CAGTTTCTGC CAGACACTGA 4980
 AAGCCATGAA GAAATGTCT GTGCCACCG TGAGGGCTGA GTGCTGCTTC TCGTGTCCCC 5040
 AGACACACAT CACACACACC CAAGGCAAA GAAGGCAACG GTTGTCCAA AGTCAAAAG 5100
 AACTCTAAGC CAAA 5115

Seq ID NO: C155 DNA Sequence
 Nucleic Acid Accession #: NM_001062.1
 Coding sequence: 76..1380

1 11 21 31 41 51
 35 GCCTCTATTA CCTCTGCCC ATCACTTAAT AAATAGCCAG CCAATTCATC AACATTCTGG 60
 TACACTGTGT GAGAGATGAG ACAGTCACAC CAGCTGCCCC TAGTGGGGCT CTACTGTGTT 120
 TCTTTTATTC CAGGCCAAT ATGCGAGATT TGTGAGGTAA GTGAAGAAAA CTACATCCGC 180
 CTAAACCTTC TGTGAATAC AATGATCCAG TCACACTATA ACAGGGGAAC CAGCGCTGTC 240
 40 AATGTTGTGT TGTCCCTCAA ACTTGTGGGA ATCCAGATCC AACCCCTGAT GCAAAAGATG 300
 ATCCAAACAA TCAATACAAA TGTGAAAAGC AGATTGTGAG ATGTAAGCTC GGGAGAGCTT 360
 GCCTTGATTA TACTGGCTTT GGGAGTATGT CGTAAGCTG AGGAAAACCT AATATATGAT 420
 TACCACCTGA CTGCAAGCT AGAAAATAAA TTCCAAGCAG AAATTGAAA TATGGAAGCA 480
 CACAATGGCA TCCCTCTGAC TAACCTACTAC CAGCTCAGCC TGAAGCTTTT GGCCTGTGTT 540
 45 CTGTTCAATG GGAACCTACT AACCCGCCAA GTTGTCAACC ACTTCACCTC TGAATAATAA 600
 AACTATTATT TTGGTAGCCA GTTCTCAGTA GATAGCTGGT CAATGGCTGT OCTGGCTCTG 660
 AOCCTGTGTA AGAAGAGTCT AATAAATGG CAGATCAAG CAGATGAAGG CAGTTTAAAG 720
 AACATCAGTA TTTATACAAA GTCACTGGTA GAAAAGATTC TGTCTGAGAA AAAAGAAAA 780
 GGTCTCATTT GAAACACATT TAGCACAGGA GAAGCCATGC AGGCCCTCTT TGTATCATCA 840
 50 GACTATTATA ATGAAAAATGA CTGGAATTGC CAACAACTC TGAATACAGT GCTCACGGAA 900
 ATTTCTCAAG GAGACTCTAG TAATCCAAAC GCTGCAGCCC AGGCTCTTAC TGCCCTGATG 960
 GGAAGACCTT TCTTGGATAT TAACAAAGAC TCTTCTTGG TCTCTGCTTC AGGTAACCTC 1020
 AACATCTCCG CTGATGAGCC TATAACTGTG ACACCTCCCT ACCTCAATC ATATATCTCC 1080
 GTCAATTACT CTGTGAGAAT CAATGAAACA TATTTCACCA ATGTCACTGT GCTAAATGGT 1140
 55 TCTGTCTTCC TCAGTGTGAT GAGAGAAAGC CAGAAAATGA ATGATACTAT ATTGGTTTC 1200
 ACATGGAGG AGCGCTCATG GGGGCCCTAT ATCACTGTA TTCAGGGCTT ATGTGCCAAT 1260
 AATATGACA GAACCTACTG GGAACCTCTG AGTGGAGGCG AACCACTGAG CCAAGGAGCT 1320
 GGTAGTTAAG TTGTCCGCAA TGGAGAAAC TTGGAGGTTT GCTGGAGCAA ATACTAATAA 1380
 GCCCAAACTT TCCTCAGCTG CATAAAATCC ATTTGCAGTG GAGTTCATG TTTATTGTCC 1440
 60 TTATGCCCTC TTCTTCATTT ATCCAGTAC GAGCAGGAGA GTTAATAACC TCCCCTTCTC 1500
 TCTCTACATG TTCAATAAAA GTTGTGAAA GATTAAC 1537

Seq ID NO: C156 DNA Sequence
 Nucleic Acid Accession #: NM_004591
 Coding sequence: 59..349

1 11 21 31 41 51
 65 CACTCCCAAA GAAGTGGGTA CTCACACTG AGCAGATCTG TTCTTTGAGC TAAAAACCAT 60
 GTGCTGTACC AAGAGTTTGC TCCTGGCTGC TTTGATGTCA GTGCTGCTAC TCCACCTCTG 120
 70 CGGCGAATCA GAAGCAGCAA GCAACTTTGA CTGCTGTCTT GGATACACAG ACCGTATTCT 180
 TCATCTCTAA TTTATTGTGG GCTTCACAGC GCAGCTGGCC AATGAAGGCT GTGACATCAA 240
 TGCTATCATC TTTCACACAA AGAAAAAGTT GTCTGTGTGC GCAAAATCAA AACGACTTGG 300
 GGTGAATAT ATTTGTGCTC TCCTCAGTAA AAAAGTCAAG AACATGTAAA AACTGTGGCT 360
 75 TTTCTGGAAT GGAATTGGAC ATAGCCCAAG AACAGAAAGA ACCTTGCTGG GGTGTGAGGT 420
 TTCCTTGCA CATCATGGAG GGTTTAGTGC TTATCTAATT TGTGCTCTAC TGGACTTGTG 480
 CAATTATGTA AGTTGATTTA TATTGCATCA TAGTTTGTCT TGTTTAAGCA TCACATTAAT 540
 GTTAAACTGT ATTTTATGTT ATTTATAGCT GTAGGTTTTC TGTGTTTACG TATTTAATAC 600
 TAATTTTCCA TAAGCTATTT TGGTTTAGTG CAAAGTATAA AATTATATTT GGGGGGGAAT 660
 80 AAGATTATAT GGACTTTCTT GCAAGCACA AGCTATTTT TAAAAAACT ATTTAACATT 720
 CTTTGTGTTA TATTGTTTGG TCTCTAAT TGTGTGTAAT GCATTATAA ATAAGAAAAA 780
 CATTAAATAG ACAAATATT 799

Seq ID NO: C157 DNA Sequence
 Nucleic Acid Accession #: NM_013271.1

Coding sequence: 27..809

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1      11      21      31      41      51
5      |      |      |      |      |      |
      TCCGGAGCCA GGCTCGCTGG GGCAGCATGG CGGGGTGCGC GCTGCTCTGG GGGCGGCGGG 60
      CCGGGGGCGT CCGCCTTTTG GTGCTGCTGC TGCTCGGCTT GTTCGGCCCG CCCCCCGCGC 120
      TCTGGCGCGG GCGCGTAAAG GAACCCGCGG CCTTAAGCGC AGCGTCTCGG CCCTTGGCTG 180
      AGACTGGCGC TCCTCGCGCG TTCCGGCGGT CAGTGCCCGG AGGTGAGGCG GCGGGGGCGG 240
      TGCAGGAGCT GCGCGGGCGG CTGGCGCATC TGCTGGAGGC CGAACCTCAG GAGCGGGCGC 300
      GGGCCGAGGC GCAGGAGGCT GAGGATCAGC AGGCGCGCGT CCTGGGCGAG CTGCTGGCGG 360
      TCTGGGGCGC CCCCOCGCAAC TCTGATCCGG CTCTGGGCTT GACGACGAC CCGACGCGC 420
      CTGCAGCGTA GCTCGCTCGC GCTCTGCTCC GCGCCCGCCT TGACCTGCGC GCCCTAGCAG 480
      CCCAGCTTGT CCCCGCGCCC GTCCCGCGCG CGCGCTCTCG ACCCCGCGCC CCGCTCTACG 540
      ACGACGCGCC CCGGGGCGCG GATGCTGAGG AGCGAGGCGA CGAGACACCC GACGTGGACC 600
      CCAGAGCTGT GAGGTACTTG CTGGGACGGA TTCTTGCGGG AAGCGCGGAC TCCGAGGGGG 660
      TGGCAGCCCC GCGCGGCTCT CGCGGTGCCG CCGACCAAGA TGTGGGCTCT GAGCTGCCCC 720
      CTGAGGGCGT GCTGGGGCGG CTGCTGCGTG TGAACGCTT AGAGACCCCG GCGCCCCAGG 780
      TGCTGCAAGC CGGCTCTCTG CCACCCGTAG CACTGCGCGG ATCCCGTGCA CCTGGGAGCC 840
      CAGAAAGTCC CCGCCATATC CGCCACCAGG ACTTCTCCCC GCGAGCAGCT CCAGAGCAAC 900
      TTACCCCGGC CAGCCAGCCC TCTCACCAGA GGATCCCTAC CCCTTGGCCC ACAATAACAT 960
      GATCTGAGC

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Seq ID NO: C158 DNA Sequence

Nucleic Acid Accession #: NM_002245.2

Coding sequence: 183..1193

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1      11      21      31      41      51
30     |      |      |      |      |      |
      GGGCAGGAAG ACCGCGCTGC CCGGAGGAGC GGGGCGGGCG GGGCGGCGGG GGAGCGGGCG 60
      GCGGGCGGGA GCCAGGCCCG GCGGGGGCGG GGGGCGGGCG GGCCAGAAGA GCGGGCGGGC 120
      CGCGCTCCGG CCGGTCTGCG GCGTTGCGCT TGGCTTTGGC TTGGCGGGCG GCGGTGAGGA 180
      AGATGCTGCA GTCCCTGCGC GGCAGCTGCT GCGTGCGCCT GGTGAGCGCG CACCGCTCGG 240
      CCTGGTGTCT CGGCTTCTCG GTGCTGGGCT ACTTGCTCTA CCTGGTCTTC GCGCGAGTGG 300
      TCTTCTCTCT GGTGGAGCTG CCTATGAGG ACCTGTCTCG CCAGGAGCTG CGCAAGCTGA 360
      AGCAGAGCTT CTGGGAGGAG CACGAGTGCC TGTCTGAGCA GCAGCTGGAG CAGTTCTCTG 420
      GCGGGTGTCT GGAGGCCAGC AACTACGGCG TGTGGTGTCT CAGCAACGCC TCGGGCAACT 480
      GGAAGTGGGA CTTCACCTCC GCGCTCTTCT TCGCCAGCAC CGTGTCTCTC ACCACAGGTT 540
      ATGGCCACAC GTGCGCTTGT TCAGATGGAG GTAAGGCCTT CTGCATCATC TACTCGGTCA 600
      TTGGCATTCC CTTCACCTCT CTGTTCTCTA CCGCTGTGGT CCAGCGCATC ACCGTGCACG 660
      TCACCCGAGC CCGGCTCTCT TACTTCCACA TCCGCTGGGG CTCTCTCAAG CAGGTGGTGG 720
      CCATGCTCCA TGGCGTCTCT CTGGGTTTGT TCACTGTGTC CTGCTTCTTC TTCTATCCCG 780
      CCGCTGTCTT CTAGTCTCTG GAGGATGACT GGAACCTTCT GGAATCTTCT TATTTTGTGT 840
      TTATTTCCCT GAGCAACATT GGCCTGGGGG ATTATGTGCC TGGGGAAGGC TACAATCAAA 900
      AATTGAGAGA GCTCTATTAAG ATTGGGATCA CGTGTACCT GCTACTTGGC CTATATGCCA 960
      TGTGTTAGT TCTGGAAACC TTCTGTGAAC TCATGAGCT GAAAAAATTC AGAAAAATGT 1020
      TCTATGTGAA GAGGACCAAG GACGAGGATC AGGTGCACAT CATAGAGCAT GACCAACTGT 1080
      CCTCTCCTCT GATCACGAGC CAGGCAGCTG GCATGAAGA GGACCAAGA CAAAATGAGC 1140
      CTTTGTGGGC CACCCAGTCA TCTGCCCTGG TGGATGGCCC TGCAAAACAT TGAGCGTAGG 1200
      ATTTGTTGCA TTATGCTAGA GCACCAAGGT CAGGGTGCAA GGAAGAGGCT TAAGTATGTT 1260
      CATTTTATC AGAATGCAAA AGCGAAATTT ATGTCACTTT AAGAAATAGC TACTGTTTGC 1320
      AATGCTTAT TAAAAACAA CAAAAAAGA CACATGGAAC AAGAAGCTG TGACCCAGC 1380
      AGGATGTCTA ATATGTGAGG AATGAGATG TCCAACCTAA ATTCTATGT GACAAATTA 1440
      TCTOGACCTT ACATAGGAGG AGAATACTG AAGCAGTATG CTGCTGTGGT TAGAAGCAGA 1500
      TTTTATACTT TTAAGTGAAG ACTTTGGGCT TTGCAATTAG ATCATTTAGC TGATGGCTAA 1560
      ATAGCAAAAT TATATTTTAT AAGCAAAAAG AAAAAACATA GAGATGTGTT TTATAAATAG 1620
      GTTATGTGT ACTGTTTTC ATGTACCCAC CAAAATGAT TATTTTGGG GATCTAAGT 1680
      CAAACTACTT ATTATATAT CATAGTAAC CATTAATAT GTACATATAA AGTATAAAT 1740
      TGTTTATATT CTGTACATAT GGTTTAGGTC ACCAGATCCT AGTGTAGTTC TGAAACTAAG 1800
      ACTATAGATA TTTTGTTCCT TTTGATTTCT CTTTATATA AAGATCCAG AGTGTCTACA 1860
      ATAAATAAG GGAATAATA AACTTGAGAG TGAATAACCA T

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Seq ID NO: C159 DNA Sequence

Nucleic Acid Accession #: NM_005472.1

Coding sequence: 93..404

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1      11      21      31      41      51
65     |      |      |      |      |      |
      AAAGGAGCTC CTGAAACTG ATTGAGAGCC CAGTGGATTT GCCAGCAGTT TGAGCTTCTA 60
      CCGAGTCTTC CCCCACCTCA ATCCCTGTGT CTATGGAGAC TACCAATGGA ACGGAGACCT 120
      GGTATGAGAG CCGTCAATGC GTGCTGAAGG CTCTAAATGC CACTCTTCAAC AGCAATTGTC 180
      TCTGCGCGCC AGGGCCAGGG CTGGGGCCAG ACAACAGAC TGAAGAGAGG CCGGCGAGCC 240
      TAACCTGGCC TGAATGACAC TCCFACATGT ACATCTCTCT TGTCTATGTT CTAFTTGTCT 300
      TAACTGTGGG CAGCCTCATC CTGGGATACA CCCGCTCCCG CAAAGTGGAC AAGCGTAGTG 360
      ACCCTTATCA TGTGTATATC AAGAACCGTG TGTCTATGAT CTAACACGAG AGGGCTGGGA 420
      CGGTGGAAGA CAGAGACACC TGGGATTGCT GTCTGGGGCC TCCAGAACTC TGCTGTGGAC 480
      TGATCAGGT CT

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Seq ID NO: C160 DNA Sequence

Nucleic Acid Accession #: NM_005245.1

Coding sequence: 187..13959

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1      11      21      31      41      51
80     |      |      |      |      |      |
      CTGGGCGGCC GGGCGCGGGG AGAGGGCGCG GGAGCGGCTC GTGCGGAGG TACCATGCGG 60

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| | | | | | | |
|----|-------------|-------------|-------------|-------------|------------|------|
| | ACGGGCGAGC | CCGGCGAGGC | CCGTCCTGTC | TCGGGGGCGC | GCTGAGACGG | 120 |
| | CGGGTGAGCT | CCACGAGAGC | CTTGGGGCCA | ACTTTGCGAT | TCCGACAGT | 180 |
| | TAAGCAATGG | GGAGACATTT | GGCTTTGCTC | CTGCTTCTGC | TCCTTCTCTT | 240 |
| 5 | GGAGACAGTG | ATGGCAGCCA | ACGACTTGAA | CAGACTCCTC | TGCAGTTTAC | 300 |
| | TACAACTGCA | CCGTGCAGGA | GAACTCTGCA | GCTAAGACTT | ATGTGGGGCA | 360 |
| | ATGGGTGTTT | ACATTACACA | TCCAGCGTGG | GAAGTAAGGT | ACAAAATTGT | 420 |
| | AGTGAAACC | TGTTCAAAGC | TGAAGAGTAC | ATTCTGGGAG | ACTTTTGCTT | 480 |
| | AGGACCAAAG | GAGGMAATAC | AGCTATTCTT | AATAGAGAAG | TGAAGGATCA | 540 |
| 10 | ATAGTGAAG | CACTTGAAAA | AAATACTAAT | GTGGAGGCGC | GAACAAAGGT | 600 |
| | GTGCTGGATA | CAATAGACTT | GAGACCGTTA | TTCTCACCCA | CCTCATACAG | 660 |
| | CCTGAAAACA | CAGCTATAAG | GACCACTATC | GCAAGAGTCA | GCGCCACGGA | 720 |
| | GGAAACCAAG | GGAAATTTTA | CTACAGTTT | AAAGATCGAA | CAGATATGTT | 780 |
| | CCAACCAAGT | GTGTGATAGT | GTTAACTGGT | AGACTTGATT | ACCTAGAGAC | 840 |
| 15 | GAGATGGAAA | TCCTCGCTGC | GGACCGTGGC | ATGAAGTTGT | ATGGGAGCAG | 900 |
| | AGCAATGGCA | AGCTACCGGT | GCACATCGAA | CAGGCCAATG | AATGTGCTCC | 960 |
| | GCACTGACAT | TGTCACCATC | AGAATCGGAC | AGGGACCCAG | CATATGCAAT | 1020 |
| | GATGACTCGG | ATCAGGTGAC | CAATGCTGAC | ATAGCATCTT | TAAGCATCGT | 1080 |
| | CTTCTCCAGC | AGTTTAGAAC | AGTGAAGTCC | TTTCCAGGGA | GTAAGGAGTA | 1140 |
| 20 | GCCATCGGTG | ACATTGATTG | GGACAGTCAT | CTTTTCGGCT | ACAATCTCAC | 1200 |
| | AAAGATAAAG | GAACTCCGCC | CCAGTTCTCT | TCTGTTAAAG | TCATTCACGT | 1260 |
| | CAGTTCAAAG | CCGGGCCAGT | CAAGTTTGAA | AAGGATGTTT | ACAGAGCAGA | 1320 |
| | TTTGCTCTCT | CCAAACACCC | TGTGGTCATG | GTAAGGCCCA | TTCTGCTTTA | 1380 |
| | AGGTATGTTT | TAAAGAGGAC | ACCTGGAAAA | GCTAAATTCA | GTTTAAATTA | 1440 |
| 25 | CTCAATTTCTA | TTTATAGAAC | AGTTAAAGAA | CAGCAGGCGG | CCCATTTTGA | 1500 |
| | ACAACAAGTG | ACAGAAAGAG | GTCCACCAAG | GTCTTGGTGA | AAGTCTTAGG | 1560 |
| | AATCCCCCTG | AATTTACCCA | GACAGCGTAC | AAAGCTGCTT | TGATGAGAAA | 1620 |
| | GGTACTACTA | TGAGGAGCCT | GAGTGCCTGA | GACCTGATG | AGGGTGAAG | 1680 |
| | ACATACAGTA | TCCCAAAATT | AAATCAATGT | CCGTTTGCGA | TGACCATTTT | 1740 |
| 30 | GTGAGTACGT | CAGAAAACCT | GGACTACGAA | CTGATGCTTC | GGGTTTATAC | 1800 |
| | CGTGATCAG | ACTGGGGCTC | GCCGTACCGC | CGGGAAGTCG | AAGTCTTTCG | 1860 |
| | CTCAATAACT | TGAATGACAA | CACACCTTGT | TTTGAGAAAA | TAAATTTGTA | 1920 |
| | CCAGAGATC | TGCTGGCAGG | AGAGCAAATA | ACCCTGTTT | CTGCTATTGA | 1980 |
| | CTTCAGTTGG | TACAGTATCA | GATTGAAGCT | GGAATGAAAC | TGGATTGTIT | 2040 |
| 35 | CCCACTCGG | GGGTATTGTC | ATTAAAGCGA | TGCTAATGG | ATGGCTTAGG | 2100 |
| | TCCTTCCACA | GTCTGAGAAAT | CACAGCTACA | GATGGAGAAA | ATTTTGGCAC | 2160 |
| | ATCAACATAA | CAGTGGCTGC | CAGTCACAAG | CTGGTAAACT | TGCAGTGTGA | 2220 |
| | GTGTCGAAA | TGCTGGCAGG | GAGCTCTCTG | CAGGCCAAATA | AATTACACAA | 2280 |
| | GTGGAGGATA | TTTCTTCCGA | TTCTCACTCT | GTCAATGCTC | ACATACCGCA | 2340 |
| 40 | ACTCTTCCGA | CTGGATTTC | GSTAAAGGAA | AACCAAGCTG | TGGTTCCTAG | 2400 |
| | ATGAACCTCA | CTGACCTTGA | CACCTGGCTTC | AATGGAAAAAC | TGGTCTATGC | 2460 |
| | GGAAATGAGG | ATAGTTGCTT | CATGATTGAT | ATGGAACAG | GAATGCTGAA | 2520 |
| | CCCTCTGACC | TGGAACCAAC | AGACAAATAC | ACCTGAATA | TTACOGTCTA | 2580 |
| | ATACCCGAGA | AGGCTGGCTG | CGCTCTTCTA | CATGCTGTGG | TGCTCGATGC | 2640 |
| 45 | CCACCCGAGT | TTTTACAGGA | GAGCTATTTT | GTGGAAGTGA | GTGAAGACAA | 2700 |
| | AGTGAAATCA | TCCAGGTTGA | AGCCACAGAT | AAAGACCTGG | GGCCCAACGG | 2760 |
| | TACTCAATTC | TTACAGACAC | AGACACATTT | TCAATTGACA | GCGTGACCGG | 2820 |
| | ATCCACGCC | CTCTGGATCG | AGAGCTGCAG | CATGAGCACT | CCTTAAAGAT | 2880 |
| | GACCAAGCCA | GAGAAGAGCC | TCAGCTGTTC | TCCACTGTGC | TTGTGAAAGT | 2940 |
| 50 | GATGTTAAT | ACAACCCACC | TACATTTATT | CCACCTAATT | ATCTGTGTGA | 3000 |
| | GATCTTCCAG | AGGAAACCGT | CATCATGTGG | TTAGAAGCCC | ACGATCTCTA | 3060 |
| | TCGTGTGAG | TGAGATACAG | CCCTCTGGAC | CACGAGAGAG | GAACCTTCTA | 3120 |
| | CTCAGTGGAG | CAGTAGAGAT | CGTCCAGCAG | TTGGACTTTG | AGAAGAGGCA | 3180 |
| | CTCACTGTGA | GGGCCAAAGA | CAAGGGAAAG | CCAGTTTCTC | TGCTTCTTAC | 3240 |
| 55 | GAAGTTGAGG | TGTTTGATGT | GAATGAGAAC | CTGCACCCAC | CGGTGTTTTC | 3300 |
| | GAAGAGGGGA | CGGTGAAAGA | AGATGCACCT | GTGGGTTCAI | TGGTAATGAC | 3360 |
| | CATGATGAGG | AGCCCGGAGG | AGATGGGGAG | ATCGATACT | CCATTAGAGA | 3420 |
| | TTTGGTTGTT | TCAAAATAGG | TGAAGAGACA | GGTGTCTAG | AGACGTCAGA | 3480 |
| | CGTGAATCGA | CTTCCCATTA | TTGGCTAACA | GTCTTTGCAA | CCGATCAGGG | 3540 |
| 60 | CTTTCACTG | CTCATAGAGT | CTACATAGAG | GTGAGGATG | TCAATGACAA | 3600 |
| | ACATCAGAGC | CTGTTTATTA | CCCAGAAATC | ATGGAAAATT | CTCCTAAGA | 3660 |
| | GTCCAGATCG | AGGCATTGTA | TCCAGATTGG | AGCTCTAATG | ACAAGCTCAT | 3720 |
| | ACAAGTGGAA | ATCCACAAGG | ATTCTTTTCA | ATACATCCTA | AAACAGGTCT | 3780 |
| | ACGTCAAGCA | AGCTACAGCG | AGAACAGCAA | GATGAACACA | TATTAGAGGT | 3840 |
| 65 | GACAAATGTA | GTCCGCCCAA | ATCAACCTAT | GCAAGAGTCA | TTGTGAAAT | 3900 |
| | AATGACAACA | AACCTCAGTT | TCTGCAAAAG | TTCTACAAAA | TCAGACTCCC | 3960 |
| | AAGCCAGACC | GAGAAAGAAA | TGCCAGACGG | GAGCCGCTCT | ATCGCGTCAT | 4020 |
| | AGGATGAGG | GCCCCAATGC | AGAAATCTCC | TACAGCATCG | AAGACGGGAA | 4080 |
| | AAATTTTCTA | TGAAACCCBA | AACTGGAGTG | GTTTGCTCCA | AGAGGTTTTC | 4140 |
| 70 | GAATATGAT | TTCTTTCAAT | TAAGGCAGTT | GACAAATGGT | GCCCTCAAAA | 4200 |
| | ACCAGACTCC | ATATTGAAAT | GATCTTCCAG | CCCAACAGT | CCCTGGAGCC | 4260 |
| | GAAGAATCAT | TTTTTACCTT | TACTGTGATG | GAAAGTGACC | CCGTGTCTCA | 4320 |
| | GTAAATATCT | TGGAGACCTC | TGGCATACCC | CTTTGGTTTG | ACATCACTGG | 4380 |
| | GACAGTCACT | TGAGATGGGA | CAAGGGAACT | GGAACCATCA | TTGTTGCCAA | 4440 |
| 75 | GCAGAACAGA | AGTCAAACTA | CAACCTCACA | GTGAGGCTCA | CAGATGGAAC | 4500 |
| | CTCACTCAGG | TATTCAITCAA | AGTAATAGAC | ACAAATGACC | ATCGTCTCTA | 4560 |
| | TCAAGATATG | AAGTTGTTAT | TCTTGAAGAT | ACAGCGCCAG | AAACAGAAAT | 4620 |
| | AGTGTCTGTT | ATCAGGATGC | GAAAAACAAA | CTAATCTACA | CTCTGCAGAG | 4680 |
| | CCACTGAGTC | TCAGAAATAT | TCGTCTTGAT | CCTGCAACCG | GCTCTCTCTA | 4740 |
| 80 | AAACTGGATC | ATGAGGCTGT | TTCAACAGCA | CACCTCACGG | TGATGGTACG | 4800 |
| | GTGCTGTGAA | AACGCAACTT | TGCAAGGATT | GTGGTCAATG | TCAGCGACAC | 4860 |
| | GCCTCGTGGT | TCACCGCTTC | CTCTACAAA | GGCGGGGTTT | ATGAATCGGC | 4920 |
| | TCACTGTGTT | TGCAAGGTGAC | GGCTCTGGAC | AAGGACAAAG | GGAAAAATGC | 4980 |
| | TACTCGATCG | AGTCAGGAAA | TATTGGAAAT | ATTGGAAATT | CTTTTATGAT | 5040 |
| | TGGGCTCTA | TTAAACTGTC | CAGGAATTA | GATCGAAGTA | ACCAAGCGGA | 5100 |

| | | | | | | | |
|----|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| | ATGGTAAAG | CTACAGATAA | GGGCAGTCCA | CCAATGAGTG | AAATAACTTC | TGTGCGTATC | 5160 |
| | TTTGTACAA | TTGCTGACAA | CGCTCTCCG | AAGTTTACAT | CAAAAGAATA | TTCTGTGAA | 5220 |
| | CTTAGTGAA | CTGTTCAGCAT | TGGGAGTTTC | GTTGGGATGG | TTACAGCCCA | TAGTCAATCA | 5280 |
| 5 | TCAGTGGTGT | ATGAAATAAA | AGATGGAAAT | ACAGGTGATG | CTTTTGATAT | TAATCCACAT | 5340 |
| | TCTGGAACTA | TCATCACTCA | GAAAGCCCTG | GACTTTGAAA | CTTTGCCCAT | TTACACATTG | 5400 |
| | ATAATACAG | GAACATAACAT | GGCTGGTTTG | TCCACTAATA | CAACGGTTCT | AGTTCACTTG | 5460 |
| | CAGGATGAGA | ATGACAAACG | GCCAGTTTTT | ATGCAGGCAG | AAATATACAG | ACTCATTAGT | 5520 |
| | GAATCAGCCT | CAATTAACAG | CGTGGTCTTA | ACAGACAGGA | ATGTCCCACT | GGTGATTCBA | 5580 |
| 10 | GCAGCTGATG | CTGATAAAGA | CTCAATGCTT | TTCCTTGTAT | ATCACATTGT | TGAACCATCT | 5640 |
| | GTACACACAT | ATPTTGTAT | TGATTTCTAGC | ACTGGTGCTA | TTCATACAGT | ACTAAGTCTG | 5700 |
| | GACTATGAAG | AAACAAGTAT | TTTTCACTTT | ACCGTCCAG | TGCATGACAT | GGGAACCCCA | 5760 |
| | CGTTTATTTG | CTGAGTATGC | AGCGAATGTA | ACAGTACATG | TAATTGACAT | TAATGACTGC | 5820 |
| | CCCCCTGTGT | TTGCCAAGCC | ATTATATGAA | GCATCTCTTT | TGTTACCAAC | ATACAAAGGA | 5880 |
| 15 | GTAAAGATCA | TCACAGTAAA | TGCTACAGAT | GCTGATTCAA | GTGCATTCTC | ACAGTTGATT | 5940 |
| | TACTCCATCA | CCGACAGCAA | CATCGGGGAG | AAGTTTTCTA | TGGACTACAA | GACTGGTGCT | 6000 |
| | CTCACTGTCC | AAAACAACAC | TCAGTTAAGA | AGCCGCTACG | AGCTAACCGT | TAGAGCTTCC | 6060 |
| | GATGGCAGAT | TTGGCGGCGT | TACCTCTGTC | AAAATTAATG | TGAAAGAAAG | CAAGAAAGT | 6120 |
| | CACCTAAAGT | TTACCCAGGA | TGTCTACTCT | GCGGTAGTGA | AAGAGAAATC | CACCGAGGCC | 6180 |
| 20 | GAAACATTAG | CTGTCTATTAC | TGCTATTGGG | AGTCCAATCA | ATGAGCLTTT | GTITTTATCAC | 6240 |
| | ATCCTCAACC | CAGATCCGAG | ATTTAAATA | AGCCGCACCT | CAGGGGTCTT | GTCAACCACT | 6300 |
| | GGCAGCCCCC | TGAGTCTGTA | GCAGCAGGAG | GCGTTTGATG | TGGTTGTAGA | AGTGATAGAG | 6360 |
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 Coding sequence: 389..1855

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Coding sequence: 427..1434

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 30 GAAATCTACG AATTTAAGT TGACACTTTC CAGCAGTTGC TTAGCCCTCG ATGCTGAAAT 1140
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 35 TGTGAGAAAT CCTATAAGAT TTCTAATCAA TGGAAATAAG GTGACAACAG CAGTATGGAC 1440
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 45 TCTGTGAATC TCTGTCAAA ATTTGAAACG AAAGCTCCAT TTTCTAGCCT GAAAGTAATC 1980
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 50 GTAAACACCA TTTCCCTGTT GCTTTCACCT AACTGCATCC TAAACTGCCC TGTGGCTTTC 2280
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 CCATGCTTA A 2651

Seq ID NO: C168 DNA Sequence
 Nucleic Acid Accession #: NM_003667.2
 Coding sequence: 49..2772

60 1 11 21 31 41 51
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 70 CCCCAGCCCA GTCTCCGCTT CTTGGAGGAG TTAAGTCTTG CGGGAAAGCG TCTGACATAC 360
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 75 TTATCGCAT TGCACGCCAT GACCTTGGCC CTGAACAAAA TACACACATC ACCAGACTAT 660
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 80 ACATACACTT TCTATGACAA TCCCATCCAA TTTGTTGGGA GATCTGCTTT TCAACATTTA 960
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| | | | | | | | |
|----|------------|-------------|-------------|------------|------------|------------|------|
| 5 | TTGGCTTGGG | ACAAAATTGC | TATTATTAC | CCCAATGCAT | TTTCCACTTT | GCCATCCCTA | 1320 |
| | ATAAAGCTGG | ACCTATCGTC | CAACCTCCTG | TCGTCTTTTC | CTATAACTGG | GTTACATGGT | 1380 |
| | TTAACTCACT | TAAAATTAAC | AGGAAATCAT | GCCTTACAGA | GCTTGATATC | ATCTGAAAAC | 1440 |
| | TTTCCAGAAC | TCAAGGTTAT | AGAAATGCCT | TATGCTTACC | AGTGCTGTGC | ATTGGAGTGT | 1500 |
| | TGTGAGAAAT | CCTATAAGAT | TTCTAATCAA | TGGAATAAAG | GTGACAACAG | CAGTATGGAC | 1560 |
| | GACCTTCATA | AGAAAGATGC | TGGAATGTTT | CAGGCTCAAG | ATGAACGTGA | CCTTGAAGAT | 1620 |
| | TTCTTGCTTG | ACTTTGAGGA | AGACCTGAAA | GCCCTTCATT | CAGTGCAGTG | TTCACTTCC | 1680 |
| | CCAGGCCCTT | TCAAAACCCTG | TGAACACCTG | CTTGATGGCT | GGCTGATCAG | AATTGGAGTG | 1740 |
| 10 | TGGACCATAG | CAGTCTCTGGC | ACTTACTTGT | AATGCTTTGG | TGACTTCAAC | AGTTTTCAGA | 1800 |
| | TGCCCTCTGT | ACATTTCCCTC | CATTAAACTG | TTAATTGGGG | TCATCGCAGC | AGTGAACATG | 1860 |
| | CTACCGGGAG | TCTCCAGTGC | CGTGCTGGCT | GCTGTGGATG | CGTTCACCTT | TGGCAGCTTT | 1920 |
| | GCACGACATG | GAGCCCTGGTG | GGAGAAIGGG | GTGGTTGGCC | ATGTCACTGG | TTTTTTGTCC | 1980 |
| | ATTTTGTCTT | CAGAATCATC | TGTTTTCCCTG | CTTACTCTGG | CAGCCCTGGA | GCGTGGGTTT | 2040 |
| 15 | TCTGTGAAT | ATTCYGCAAA | ATTTGAAACG | AAAGCTCCAT | TTTCTAGCCT | GAAAGTAATC | 2100 |
| | ATTTTGTCTT | GTGCCCTGCT | GGCCTTGACC | ATGGCCGACG | TTCCCTGCT | GGGTGGCAGC | 2160 |
| | AAGTATGGGG | CCCTCCCTCT | CTGCCTGCCT | TTGCCCTTTG | GGGAGCCGAG | CACCATGGGC | 2220 |
| | TACATGCTTG | CTCTCATCTT | GCTCAATTCC | CTTTGCTTCC | TCATGATGAC | CATTGCTTAC | 2280 |
| | ACCAAGCTCT | ACGTCAATTT | GGACAAGGGA | GACCTGGAGA | ATATTGGGGA | CTGCTCTATG | 2340 |
| 20 | GTAAACACAC | TTGCCCTGTT | GCTCTTCACC | AACTGCATCC | TAAACTGCCC | TGTGGCTTTC | 2400 |
| | TGTGCTCTCT | CCCTTTTAA | AAACCTTACA | TTTATCAGTG | CTGAAGTAAT | TAAGTTTATC | 2460 |
| | CTTCTGGTGG | TAGTCCCACT | TCCTGCATGT | CTCAATCCCC | TTCTCTACAT | CTTGTTCAT | 2520 |
| | CCTCACCTTA | TGGAGGATCT | GGTGGGCTTG | AGAAAGCAAA | CCTACGCTCG | GACAAGATCA | 2580 |
| | AAACACCCAA | GCTTGATGTC | AATTAACCT | GATGATGTGG | AAAACAGTTC | CTGTGACTCA | 2640 |
| 25 | ACTCAAGCCT | TGGTAACCTT | TACCAGCTCC | AGCATCACTT | ATGACCTGCC | TCCCACTTCC | 2700 |
| | GTGCCATCAC | CAGCTTATCC | AGTGACTGAG | AGCTGCCATC | TTTCTCTGT | GGCATTGTG | 2760 |
| | CCATGTCTCT | AAATTAATATG | TGAAGGAAAA | TGTTTTCAAA | GGTTGAGAAC | CTGAAAATGT | 2820 |
| | GAGATTGAGT | ATTTCAGAGC | AGTAATTAAT | AAGAAGAGCT | GAGGTGAAAC | TCGGTTTAAA | 2880 |

Seq ID NO: C169 DNA Sequence
Nucleic Acid Accession #: NM_003506.1
Coding sequence: 259..2379

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| | TTAGACGGGG | ACGGAAGGGG | ACAGCGGCGT | TCGACCGCCC | CCCAGTAAT | TGACCCAGGA | 120 |
| | CTCATTTTCA | GGAAAGCTG | AAATGAGTA | AAATAGTGAA | ATGAGGAATT | TGAACATTTT | 180 |
| | ATCTTTGGAT | GGGGATCTTC | TGAGGATGCA | AAGAGTGATT | CATCCAAGCC | ATGTGGTAAA | 240 |
| | ATCAGGAAT | TGAAGAAAT | GGAGATGTTT | ACATTTTTGT | TGACGTGTAT | TTTTCTAACC | 300 |
| 40 | CTCCTAAGAG | GGCACAGTCT | CTTCACCTGT | GAACCAATTA | CTGTTCCCAG | ATGTATGAAA | 360 |
| | ATGGCCTACA | ACATGACGTT | TTTCCCTAAT | CTGATGGGTC | ATTATGACCA | GAGTATTGGC | 420 |
| | GCGGTGGAAA | TGGAGTCTT | TCCTCTCTC | GCAAACTGCG | AATGTTCAAC | AAACATTGAA | 480 |
| | ACTTTCCCTC | GCAAGACATT | TGTACCAACC | TGCATAGAAC | AAATTCATGT | GGTCCACCT | 540 |
| 45 | TGTCGTAAAC | TTTGTGAGAA | AGTATATTCT | GATTGCAAAA | AAITTAATTGA | CACTTTTGGG | 600 |
| | ATCCGATGGC | CTCGAGAGCT | TGAATGTGAC | AGATTACAA | ACTGTGATGA | GACTGTTCCT | 660 |
| | GTAACCTTTG | ATCCACACAC | AGAATTTCTT | GGTCCTCAGA | AGAAAACAGA | ACAGTCCAA | 720 |
| | AGAGACATGG | GATTTTGGTG | TCCAAGGCAT | CTTAAGACTT | CTGGGGGACA | AGGATATAAG | 780 |
| | TTTCTGGGAA | TTGACGAGTG | TGCGCCTCCA | TGCCCCAACA | TGTATTTTAA | AAGTGATGAG | 840 |
| 50 | CTAGAGTTTG | CAAAAAGTTT | TATTGGAACA | GTTTCAATAT | TTTGTCTTTG | TGCAACTCTG | 900 |
| | TTACCATTTT | TACTTTTITT | AATTGATGTT | AGAAGATTCA | GATACCCAGA | GAGACCAATT | 960 |
| | ATATATTACT | CTGCTCTGTA | CAGCATTTGA | TCTCTTATGT | ACTTCATTGG | ATTTTGTCTG | 1020 |
| | GGGATAGACA | CAGCCTGCAG | TAGGCGAGAT | GAGAAGCTAG | AACCTGGTGA | CACGTGTGTC | 1080 |
| | CTAGGCTCTC | AAAATAGGCG | TTGCACCGTT | TTGTTTATGC | TTTGTATTTT | TTTCACATG | 1140 |
| 55 | GCTGGCCTG | TGTGTTGGTT | GATCTTTACC | ATPACTTGGT | TCTTAGCTGC | AGGAAGAAAA | 1200 |
| | TGGAGTTGTG | AAGCCATCGA | GCAAAAAGCA | GTGTGGTTTC | ATGCTGTTGC | ATGGGGAAAC | 1260 |
| | CCAGGTTTCC | TGACTGTATT | GCTTCTTGCT | CTGAACAAAG | TTGAAGGAGA | CAACATTAGT | 1320 |
| | GGAGTTTGCT | TTGTTGGCTT | TTATGACCTG | GATGCTTCTC | GCTACTTTTG | ACTCTTGCCA | 1380 |
| | CTGTGCTTCT | GTGTGTTTGT | TGGGCTCTCT | CTTCTTTTAG | CTGGCATPAT | TTCTTTAAAT | 1440 |
| 60 | CATGTTCCAG | AAGTCATACA | ACATGATGGC | CGGAACCAAG | AAAACTAAA | GAAATTTATG | 1500 |
| | ATTCGAAITG | GAGTCTTCAG | CGGCTTGAT | CTGTGCCAT | TAGTGACACT | TCTCGGATGT | 1560 |
| | TAGCTCTATG | AGCAAGTGAA | CAGGATTACC | TGGGAGATAA | CTTGGGCTCT | TGATCATTTT | 1620 |
| | CGTCAGTACC | ATATCCCATG | TCCTTATCAG | GCAAAAGCAA | AAGCTCGACC | AGAATTTGGCT | 1680 |
| | TTATTTATGA | TAAAATACCT | GATGACATTA | ATTGTTGCGA | TCTCTGCTGT | CTTCTGGGTT | 1740 |
| 65 | GGAAAGCAAA | AGACATGCAC | AGAATGGGCT | GGGTTTTTTA | AACGAAATCG | CAAGAGAGAT | 1800 |
| | CCAATCAGTG | AAAGTCGAG | AGTACTACAG | GAATCATGTG | AGTTTTTCTT | AAAGCACAA | 1860 |
| | TCTAAAGTTA | AACACAAAAA | GAAGCATTAT | AAACCAAGTT | CACACAAGCT | GAAGGTCAAT | 1920 |
| | TCCAAATCCA | TGGGAACGAG | CACAGGAGCT | ACAGCAAAATC | ATGGCACTTC | TGCAGTAGCA | 1980 |
| | ATTACTAGCC | ATGATTACCT | AGGACAAGAA | ACTTTGACAG | AAATCCAAAC | CTCACCAGAA | 2040 |
| 70 | ACATCAATGA | GAGAGGTGAA | AGCGGACCGA | GCTAGCACCT | CCAGGTTAAG | AGAACAGGAC | 2100 |
| | TGTGGTGAAC | CTGGCTCGCC | AGCAGCATCC | ATCTCCAGAC | TCTCTGGGGA | ACAGGTGAGC | 2160 |
| | GGGAGGGGCC | AGGCAGGCCG | TGTATCTGAA | AGTGCGCGGA | GTGAAGGAG | GATTAGTCCA | 2220 |
| | AAGAGTGATA | TTACTGACAC | TGGCCTGGCA | CAGAGCAACA | ATTTGCAGGT | CCCCAGTTCT | 2280 |
| | TCAGAACCAA | GCAGCCTCAA | AGGTTCCACA | TCTCTGCTTG | TTCAACCCAGT | TTCAGGAGTG | 2340 |
| 75 | AGAAAAGAGC | AGGAGGTTGG | TGTCTATTCA | GATACTTGAA | GAACATTTTC | TCTCGTTACT | 2400 |
| | CAGAAGCAAA | TTTGTGTTAC | ACTGGAAGTG | ACCTATGCAC | TGTTTTGTAA | GAACTACTGT | 2460 |
| | TAGCTTCTTC | TTTTGCACIT | AAAGTTGCAT | TGCTTACTGT | TATACTGGAA | AAAAATAGAT | 2520 |
| | TCAGAAATTA | TATGACTCAT | TTCAACAAAA | GGTTAATGAC | AACAATATAC | CTGAAAAACG | 2580 |
| | AAATGTGCAG | GTTAATTAATA | TTTTTTTAA | AGTGTGGGAG | GACAGAGTTA | GAGGAATCTT | 2640 |
| 80 | CCTTTTCTAT | TATGAGAT | TCTACTCTTG | GTAAGAGTAT | TTTAAGATGT | ACTATGCTAT | 2700 |
| | TTTACCTTTT | TGATATAAAA | TCAAGATATT | TCTTTGCTGA | AGTATTTAAA | TCTTATCCTT | 2760 |
| | GTATCTTTTT | ATACATATTT | GAAAATAAGC | TTATATGTAT | TTGAACCTTT | TTGAAATCCT | 2820 |
| | ATTCAAGTAT | TTTTATCAAG | CTATTGTGAT | ATTTAGCAC | TTTGGTAGCT | TTTACACTGA | 2880 |
| | ATTCTTAAGA | AAATGTAAAA | ATAGTCTTCT | TTTATACITG | AAAAAAGAT | ATACCAAAAA | 2940 |
| | GTCTTATAAT | AGGAATTTAA | CTTTAAAAAC | CCACTTATTG | ATACCTTACC | ATCTAAAAATG | 3000 |

5
TGTGATTTT ATAGTCTCGT TTTAGGAATT TCACAGATCT AAATTATGTA ACTGAAATAA 3060
GGTGCTTACT CAAAGAGTGT CCACATTTGA TTGTATTATG CTGCTCAGTG ATCCTTCTGC 3120
ATATTTAAAA TAAATGTTC TAAAGGGTTA GTAGACAAA TGTTAGTCTT TTGTATATTA 3180
GGCCAAAGTC AATTGACTTC CCTTTTAA TGTTCATGA CCACCCATG ATTGTATTAT 3240
AACCACATAC AGTTGCTTAT ATTTTGTGTT TTAACTTTGT TTTCTTAACA TTTAGAAATAT 3300
TACATTTTGT ATTATACAGT ACCTTTCTCA GACATTTTGT AG 3342

Seq ID NO: C170 DNA Sequence

Nucleic Acid Accession #: NM_000582

Coding sequence: 88-990

10

1 11 21 31 41 51
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CTTCCAAAG TCAGCCGTGA ATTCCACAGC CATGAATTTT ACAGCCATGA AGATATGCTG 900
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TTAGATAGTG CATCTCTGA GGTCAATTAA AAGGAGAAAA AATACAATTT CTCACCTTTC 1020
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TCATGAATAG AATTTTATGT AGAAGCAAC AAAATACTTT TACCCACTTA AAAAGGAAAT 1320
ATAACATTTT ATGTCACAT ATCTTTTGT TTTTAAAGTT AGTGTATATT TTGTTGTGAT 1380
TATCTTTTGT TGGTGTGAAT AATCTTTTA TCTTGAATGT AATAAGAATT TGGTGGTGTG 1440
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GCCTAAAAA AAAAAAAA AAAA 1524

Seq ID NO: C171 DNA Sequence

Nucleic Acid Accession #: NM_002821

Coding sequence: 150..3362

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OCTCAGCTCC TTTTCTCTAG CCGCCCTGCA TGCGAGCTGC GCGGGGATCC CCGGCCAGAC 180
CCGCGCGGTT GCCCTGCTC AGCGTCTCTG TCTCTGCGCT GCTGGGCGGT ACCCAGACAG 240
CCATTGTCTT CATCAAGCAG CCGTCTCTCC AGGATGCACT GCAGGGGCTC CCGGGCGCTG 300
TTCTGTGTA GGTGAGGCT CCGGGCCCGG TACATGTGTA CTGGCTGCTC GATGGGGCCC 360
CTGTCCAGA CGTAGAGCG CGTTTCGCC AGGGCAGCAG CCTGAGCTTT GCAGCTGTGG 420
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AAGCCCGCAG TGCCCAAGCC TCCCTCAACA TCAATGGAT TGAGGCAGGT CCTGTGTTCC 540
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TGAAGCATCC AGGCTCGGAA GCTGAGATCC AGCCACAGAC CCAGGTACACA CTTCGTTCGC 600
ACATTGATGG GCACCTCGG CCCACCTACC AATGGTTCGG AGATGGGACC CCGCTTCTG 660
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GTCTGAGCA TAGTGGGCTG TATCTCTGCT GCGCCACAG TGCTTTTGGC CAGGCTTGCA 780
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AGAAAGGCCA CGAGCTGGTG TTGGCAATA TTGCTGAAAG TGATGCTGGT GTCTACACCT 1320
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TGCCCTCTCG GCTGAAGAAG CCCCAGACA GCCAGCTGGA GAGAGGCAAA CCGGCTACT 1440
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AGGGCCCTGG CAGCCCTCCC CCGTACAAGA TGATCCAGAC CATTTGGTTG TCGGTGGGTG 2280
CCGCTGTGTC CTACATCAAT GCGTGTCTGG GCTCATGTT CTACTGCAAG AAGCGCTGCA 2340

| | | | | | | | |
|----|------------|-------------|------------|-------------|-------------|-------------|------|
| 5 | AAGCCAAGCG | GCTGCAGAAG | CAGCCCGAGG | GCGAGGAGCC | AGAGATGGAA | TGCCTCAACG | 2400 |
| | GAGGGCCTTT | GCAGAACCGG | CAGCCCTCAG | CAGAGATCCA | AGAAGAAGTG | GCCTTGACCA | 2460 |
| | GCTTGGGCTC | CGGCCCCCGG | GCCACCAACA | AACGCCACAG | CACAAGTGAT | AAGATGCATC | 2520 |
| | TCCCACGGTC | TAGCCTGCAG | CCCATCACCA | CCTCGGGGAA | GAGTGAGTTT | GGGGAGGTGT | 2580 |
| | TCTTGGCAAA | GGCTCAGGGC | TGAGAGGAGG | GAGTGGCAGA | GACCTGGTA | CTTGTGAAGA | 2640 |
| | GCCTGCAGAC | GAAGGATGAG | CAGCAGCAGC | TGGACTTCCG | GAGGAGTTTG | GAGATGTTTG | 2700 |
| | GGAGGCTGAA | CCACGCCAAC | GTGGTGGCGG | TCTTGGGGCT | GTGCGGGGAG | GCTGAGCCCC | 2760 |
| | ACTACATGGT | GCTGGAATAT | GTGGATCTGG | GAGACCTCAA | GCAGTTCTCT | AGGATTTCCA | 2820 |
| 10 | AGAGCAAGGA | TGAAAATTTG | AAGTCACAGC | CCCTCAGCAC | CAGCAGAAAG | GTGGCCCTAT | 2880 |
| | GCACCCAGGT | AGCCCTGGGC | ATGGAGCACC | TGTCCAACAA | CCGCTTGTGT | CATAAGGACT | 2940 |
| | TGGCTGCGCG | TAACTGCGCT | GTCACTGCCC | AGAGACAAGT | GAAGGTGTCT | GGCCCTGGGC | 3000 |
| | TCAGCAAGGA | TGTGTACAAAC | AGTGAGTACT | ACCACTTCCG | CCAGGCGTGG | GTGCGCTGCG | 3060 |
| | GCTGGATGTC | CCCCGAGGCC | ATCCCTGAGG | GTGACTTCTC | TACCAAGTCT | GATGTCTGGG | 3120 |
| | CCTTCGGTGT | GCTGATGTGG | GAGTGTGTTA | CACATGGAGA | GATGCCCAT | GGTGGGCAGG | 3180 |
| 15 | CAGATGATGA | AGTACTTGCA | GATTGTGAGG | CTGGGAAGGC | TAGACTTCCT | CAGCCCGAGG | 3240 |
| | GCTGCCCTTC | CAAACCTCTAT | CGGCTGATGC | AGCGCTGCTG | GGCCCTCAGC | CCCAAGGACC | 3300 |
| | GGCCCTCCTT | ATCAGGGACA | GCCAGCGCCC | TGGAGACAG | CACCGTGGAG | AGCAAGCCGT | 3360 |
| | GAGGAGGGAG | CCCGCTCAGG | ATGGCTGGGG | CAGGGGAGGA | CATCTCTAGA | GGGAAAGCTCA | 3420 |
| 20 | CAGCATGATG | GGCCCAAGCC | CTGTCTCTCT | GGGCCCTGAG | GTGCCCTAGT | GCAACAGGCA | 3480 |
| | TGCTGAGGT | CTGAGCAGGG | CCTGGCCTTT | CCTCCTCTTC | CTCACCCCTCA | TCCTTTGGGA | 3540 |
| | GGCTGACTTG | GACCCAAACT | GGGCGACTAG | GGCTTTGAGC | TGGGCAGTTT | CCCTTGCAC | 3600 |
| | CTCTTCTCT | ATCAGGGACA | GTGTGGGTGC | CACAGGTAAC | CCCAATTTCT | GGCTTCAAC | 3660 |
| | TTCTCCCTTT | GACCGGGTCC | AACCTCTCCA | CTCATCTGCC | AACCTTGGCT | GGGGAAGGCT | 3720 |
| 25 | AGGCTTGGGA | TGAGCTGGGT | TTGTGGGAG | TTCTTAATA | TTCTCAAGTT | CTGGGCACAC | 3780 |
| | AGGGTTAATG | AGTCTCTTGC | CCACTGTGCC | ACTTGGGGGT | CTAGACCCAG | ATTATAGAGG | 3840 |
| | ACACAGCAAG | TGAGTCTCTC | CCACTCTGGG | CTTGTGCACA | CTGACCCAGA | CCCACGCTCT | 3900 |
| | CCCCACCTTT | CTCTCCTTTT | CTCATCTTAA | GTGCCCTGGCA | GATGAAGGAG | TTTTTCAGGAG | 3960 |
| | CTTTTGACAC | TATATAAACCC | GGCCCTTTTG | TATGCACCTC | GGGCGGCTTT | TATATGTAAT | 4020 |
| 30 | TGCAGCGTGG | GGTGGGTGGG | CATGGGAGGT | AGGGGTGGGC | CCTGGAGATG | AGGAGGTTGG | 4080 |
| | GCCATCCTTA | CCCCACACTT | TTATGTGTGT | CGTTTTTGTG | TGTGTTGTGT | TTTTTGTTTT | 4140 |
| | TGTTTTTGT | TTTACACTCG | CTGCTCTCAA | TAAATAAGCC | TTTTTTTA | | 4187 |

Seq ID NO: C172 DNA Sequence

Nucleic Acid Accession #: NM_002309.2

Coding sequence: 65..673

| | | | | | | | |
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| 35 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | ATGAACCTCT | GAAAACTGCC | GGCATCTGAG | GTTCCTCTCA | AGGCCCTCTG | AAGTGCAGCC | 60 |
| 40 | CATAATGAAG | GTCTTGGCGG | CAGGAGTTGT | GCCTCTGCTG | TTGGTTCTGC | ACTGGAACA | 120 |
| | TGGGGCGGG | AGCCCCCTCC | CCATCACCCC | TGTCAAGGCC | ACCTGTGCCA | TACGCCACCC | 180 |
| | ATGTCAACAAC | AACCTCATGA | ACCAGATCAG | GAGCCAACTG | GCACAGCTCA | ATGGCAGTGC | 240 |
| | CAATGCCCTC | TTTATTTCTT | ATTACACAGC | CCAGGGGGAG | CGGTTCGCCA | ACAACCTGGA | 300 |
| 45 | CAAGCTATGT | GGCCCTCAAG | TGAAGGACTT | CCCGCCCTTC | CACGCCAAGG | GCACAGAGAA | 360 |
| | GGCCAAAGCTG | GTGGAGCTGT | ACCGCATAGT | CGTGTACTTT | GGCACCTCCC | TGGGCAACAT | 420 |
| | CACCCGAGAC | CAGAGAGATCT | TCAACCCACG | TGCCCTCAGC | CTCCACAGCA | AGCTCAACGC | 480 |
| | CACCCGCGAC | ATCCCTGCGAG | GCCTCCTTAG | CAACGTGCTG | TGCCGCTTGT | GCAGCAAGTA | 540 |
| | CCACGTGGGC | CACTGTGGAG | TGAACCTACG | CCCTGCACCC | TGGGTAAAGG | ATGCTCTTCC | 600 |
| 50 | GAAGAAAGAG | GGCCCTGCTC | AACCTCTGGG | GAAGTATAAG | CAGATCATGG | CGGTGTTGGC | 660 |
| | CCAGGCCCTC | TAGCAGGAGG | TCTTGAAGTG | TGCTGTGAAC | CGAGGATCTC | CAGGAGTTGG | 720 |
| | GTCCAGATGT | GGGGGCTGT | CCAAGGTTGG | CTGGGGCCCA | GGGCATCGCT | AAACCCAAAT | 780 |
| | GGGGGCTGCT | GGCAGACCCC | GAGGGTGCTT | GGCCAGTCCA | TCTCACTCTG | GGCTGGGCTG | 840 |
| | TGATGAAGCT | GACAGAGAGT | GAAACTTCCA | TAGGGAGGGA | GCTAGAAGAA | GGTGGCCCTT | 900 |
| 55 | CCTCTGGGAG | ATGCTGAGGT | GGGAGGGGTG | GGCTGACTTT | CTGCCCTTAC | TTGTCCCTTT | 960 |
| | GGCCCTTGGC | TCACTTTGTT | CAGTGAACAA | ACTACACAAG | TCACTACAAA | GAGCCCTGAC | 1020 |
| | CACAGGGTGA | GACAGCAGGG | CCAGGGGAGG | TGGACCAAGC | CCAGCAAAAT | TATCACCATC | 1080 |
| | TGTGCCCTTG | CTGCCCTTTA | GGTTGGGACT | TAGGTGGGCC | AGAGGGGGCTA | GGATCCCAAA | 1140 |
| | GCACCTCTTG | TCCCTTAGAA | GTTTGATGAG | TGGAGATAG | AGAGGGGCTT | CTGGGATGGA | 1200 |
| 60 | AGGCTGTCTT | CTTTTGAAGG | TGATCAGAGA | ACTTGGGCAT | AGGAACAATC | TGGCAGAAAT | 1260 |
| | TTCCAGAAAG | AGGTCACTTG | GCATTGAGG | TCTTGGGGAG | GCAGAGAAAG | CACCTTCAGG | 1320 |
| | CCTGGGAAGG | AAGCACTTGG | GAGGAGGAGA | GGCTTGGAAA | GCTTTGGTAG | GTTCCTCGTT | 1380 |
| | CTCTTCCCGG | TGATCTTCCC | TGCAGCCTGG | GATGGCCAGG | GTCTGATGGC | TGGACCTGCA | 1440 |
| | GCAGGGGTTT | GTGGAGGTGG | GTAGGGCAGG | GGCAGGTTCG | TAGTCAAGTT | GCAGAGGTTT | 1500 |
| 65 | TGAGGGACCC | AGGCTCTTCC | TCTGGGTAAA | GCTCTGTAAG | AAGGGGCTGG | GGTAGCTCAG | 1560 |
| | AGTAGCAGCT | CACATCTGAG | GGCCTGGGAG | GTCTGTGAGG | GTCAACAGAA | GGTACTTGAG | 1620 |
| | GGGACTTGGG | GGCCGTCTCT | GGTCCCAAGG | GCAGGGAAGC | AGCAGAACTT | AGGGTCAGGG | 1680 |
| | TCTCAGGGAA | CCCTGAGCTC | CAGGCGTGCT | GTGGCTCTGA | CTGGGCATGA | TTTCTATTTA | 1740 |
| | TTATGATATC | CTATTTATAT | TAACTTATTT | GTCTTTTCAG | TGGCCAAAGT | AATTCCCTTT | 1800 |
| 70 | TCCCTGGTCC | CTACTCAACA | AAATATGATG | ATGGCTCCCG | ACACAAGGCG | CAGGGCCAGG | 1860 |
| | GCTTAGCAGG | GGCTGGTCTG | GAACTCGACA | ATGTTACAAG | TGGAATAAGC | TTAAGGGTGA | 1920 |
| | AGCTCAGAGA | AGGTCGGGAT | CTGAGAGAAAT | GGGAGGGCCT | GAGTGGGAGT | GGGGGGCCTT | 1980 |
| | GCTCCACCCC | CATCCCTTAC | TGTGACTTGC | TTTAGCGTGT | CAGGGTCCAG | GCTGCAGGGG | 2040 |
| | CTGGGCCAAT | TTGTGGAGAG | GGCGGGTGCC | TTTCTGTCTT | GCTTCCAGGG | GGCTGGTTCA | 2100 |
| 75 | CACCTTCTTT | GGGGGCCCCA | GCATTTGTTT | GTGAGGGGCA | CTGTTCTCTG | CAGATATTGT | 2160 |
| | GGCCCTCTGA | GCAGTGGGCA | AGACAGTCTT | TGTGGGCCAC | CGTGTCTCTT | TTTCTGTGTC | 2220 |
| | CCCATGTGTC | CTCTGAAATA | GCGCCCTGGA | ACAACCTTGC | CCCTGCACCC | AGCATGCTCC | 2280 |
| | GACACAGCAG | GGAGGCTCCT | CCGTGTGGCC | GGACACCCAT | AGACGGTGGG | GGGGGCTGGG | 2340 |
| | CTGGGCCAGA | CCCCAGGAAG | GTGGGGTAGA | CTGGGGGAGT | CAGCTGCCCA | TTGCTCCCAA | 2400 |
| 80 | GAGGAGGAGA | GGGAGGCTGC | AGACGCTCGG | GACTCAGACC | AGGAAGCTGT | GGGCTCTCTT | 2460 |
| | GCTCCACCCC | CATCCCATCT | CCACCCATGT | CTGGGCTCCC | AGGCAGGGAA | CCGATCTCTT | 2520 |
| | TCTTTTGTGC | TGGGGCCAGG | CGAGTGGAGA | AACGCTCTCC | AGTCTGAGAG | CAGGGGAGGG | 2580 |
| | AAGGAGGCGG | CAGAGTTGGG | GCAGCTGCTC | AGAGCAGTGT | TCTGGCTTCT | TCTCAAAACC | 2640 |
| | TGAGCGGGCT | GGCGGCTTCC | AAGTTCTCTC | GACAAGATGA | TGGTACTAAT | TATGGTACTT | 2700 |
| | TTACATCACT | TTGCACCTTT | CCCTGTCTCC | CTCTAAGCAC | TTTACCTGGA | TGGCGGCTGG | 2760 |

5
10
15
20

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GCAGTGTGCA GGCAGGTCTCT GAGGCTTGGG GTTGGGGTGG AGGGTGGGGC CCGGAGTTGT 2820
CCATCTGTTC ATCCCAACAG CAAGACGAGG ATGTGGCTGT TGAGATGTGG GCCACACTCA 2880
CCCTTGTCCA GATGTCAGGG ACTGCCCTCT CCTTCTGTCT TCATCCGGCT TAGCTTGGGG 2940
CTGGCTGCAT TCCCCAGGA TGGGCTTGA GAAAGACAAA CTGTCTGGA AACAGAGTT 3000
GCTGATTCCA CCGGGGGGGC CCGGCTGACT CGCCCATCAC CTCATCTCCC TGTGGACTTG 3060
GGAGCTCTGT GCCAGGCCCA CCTTGCGBCC CTGGCTCTGA GTCCCTCTCC CACCCAGCCT 3120
GGACTTGGCC CCATGGGAOC CATCCTCAGT GCTCCTCCA GATCCGCTCC GGCAGCTTGG 3180
CGTCCACCTT GCACAGCATC ACTGAATCAC AGAGCCTTGG CGTGAACAG CTCTGCCAGG 3240
CCGGAGCTGT GGTITCTCTT CCTITTTTAT CTGCTGGTGT GGACCAACC TGGGCTTGGC 3300
CGGAGGAGAA GAGAGTTTAC CAAGAGAGAT GTCTCCGGGC CCTTATTTAT TATTTAAACA 3360
TTTTTTTAAA AAGCACTGCT AGTTTACTTG TCTCTCTCC CCATCGTCCC CATCGTCTTC 3420
CTTGTCCCTG ACTTGGGGCA CTTCACCTT GACCCAGCCA GTCCAGCTCT GCCTTGGCGG 3480
CTCTCCAGAG TAGACATAGT GTTGGGGTGT GGAGCTCTGG CACCCGGGGA GGTAGCATTT 3540
CCTTCAGAT GGTACAGATG TTCCTGCTT AGACTCATCT CTAGTTCCCT ACCTCAATCC 3600
CGGCATCCAG CCTTCAGTCC CGCCCACTG CTAGCTCCGT GGGCCACCG TGCGGCTTAA 3660
GAGGTTTCCC TCCCTCCTTT CCACCTGAAA GCACATGACC TTGGGTGACA AATTCTCTTT 3720
TGATGAATGT ACCCTGTGGG GATGTTTCAT ACTGACAGAT TATTTTATTT TATTCATGAT 3780
CATATTTAAA ATATTTATTT TTATACCAA ATGAATCACT TTTTFTTTTA AGAAAAAAA 3840
GAGAAATGAA TAAAGATCT ACTCTTCG 3868

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Seq ID NO: C173 DNA Sequence
Nucleic Acid Accession #: XM_097508
Coding sequence: 44..2788

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1 11 21 31 41 51
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GACACTGTGT TTGTCAAGTG CAATAATCAT CTCTGCCGGG GACCTCAGCA TGAACAACCT 120
CACAGAGCCT CACGCTGGCC TCTTCCACCA CCTGCGCTTC TTGGAGGAGC TGCGTCTCTC 180
TGGGAACCAT CTCTCACACA TCCAGGACA AGCATTTCTT GGTCTCTACA GCCTGAAAAA 240
CCTGATCTGT CAGAAACAATC AGCTGGGAGG AATCCCCBCA GABGCGCTGT GGGAGCTGCC 300
GAGGCTGCAG TCGCTCGGCC TAGATGCCAA CCTCATCTCC CTGGTCCCGG AGAGGAGCTT 360
TGAGGGGCTG TCTCTCTCTC GCCACCTCTG GCTGGAGGAC AATGCACTCA CGAGATCCCT 420
TGTCAGGCGC CTCAGACACC TCCCTGCCCT GCAGGCCATG ACCCTGGCCC TCAACCGCAT 480
CAGCCACATC CCGCACTAGC CGTTCAGAA TCTCACGAGC CTGTGGTGGC TGCATTGCA 540
TAACCAACCGC ATCCAGATC TGGGGACCCA CAGCTTCGAG GGGCTGCACA ATCTGGAGAC 600
ACTAGACCTG AATTATAACA AGCTGCAGGA GTTCCCTGTG GCDATCCGGA CCTTGGGCGC 660
ACTGCAGGAA CTGGGGTTCC ATAAACAACA CATCAAGGCC ATCCAGAAA AGGCTCTCAT 720
GGGGAACCTT CTGCTACAGA CGATCACTT TTATGATAAC CCAATCCAGT TTGTGGGAAG 780
ATCGGCATTC CAGTACCTGC CTAAACTCCA CACACTATCT CTGAATGGTG CCATGGACAT 840
CCAGAGGTTT CCAGATCTCA AAGGCACCC CAGCTTGGAG ATCCTGACCC TGACCCGCGC 900
AGGCATCCGG CTGCTCCCAT CGGGATGTG CCAACAGCTG OCCAGGCTCC GAGTCTCTGA 960
ACTGTCTCAC AATCAAAATG AGGAGCTGDC CAGCTGACAG AGGTGTGAGA AATTGGAGGA 1020
AATCGGCTTC CAACACAACC GCATCTGGGA AATTGGAGCT GACACCTTCA CCGAGCTGAG 1080
CTCCCTGCAA GCGCTGATC TTAGCTGGAA CGCCATCCGG TCATCCACC CCGAGGCTTT 1140
CTCCACCTCG CACTCCCTGG TCAAGCTGGA CCTGACAGAC AACCACTGTA CCACACTGCC 1200
CCTGGCTGGA CTGGGGGCT TGAATCATCT GAAGCTCAAA GGGAACTTGT CTCTCTCCA 1260
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GTGCTGTGCT TATGGGATGT GTGCGAGCTT CTTCAGGCGC TCTGGCAGT GGGAGGCTGA 1380
AGACCTTCAC CTTGATGATG AGGAGCTTTC AAAAAGGCGC CTGGGCTTCC TTGCTGACA 1440
AGCAGAGAAC CACTATGACC AGGACCTGGA TGAGCTCCAG CTGAGATGG AGGACTCAAA 1500
GCCACACCCC AGTGTCCAGT GTAGCCCTAC TCCAGGCCCC TTCAAGCCCT GTGAGTACCT 1560
CTTTGAAGCG TGGGGCATCC GCGTGGCGCT GTGGGCCATC GTGTGTCTCT CCGTGTCTTG 1620
CAATGGACTG GTGCTGTGTA CGTGTTCGCG TGGCGGGCCT GTCCCGCTGC CCGCGTCAA 1680
GTTTGTGATA GGTGCGATTG CAGGCGCCAA CACCTTGACT GGCATTTTCT GTGGCCTTCT 1740
AGCCTCAGTG GATGCCCTGA CCTTTGTTCA GTTCTCTGAG TACGGAGCCC GCTGGGAGAC 1800
GGGCTGAGCG TGCGGGGCGA CTGGCTTCTT GGCAGTACTT GGGTGGAGG CATCGGTGCT 1860
GCTGCTCAGT CTGGCGCGAG TGCAGTGCAG CGTCTCCGTC TCCTGTGTCC GGGCTATGG 1920
GAAGTCCCCC TCCCTGGGCA GCGTTCGAGC AGGGTCCCTA GGCCTGCTTG CACTGGCAGG 1980
GCTGGCGGCG GCGCTGCCCC TGGCCTCAGT GGGAGAATAC GGGGCTTCCC CACTCTGCT 2040
GCCCTACGCG CCACTGAGG GTACGCCAGC AGCCCTGGGC TTCAAGCTGG CCTTGGTAT 2100
GATGAACCTC TTCTGTTTCC TGGTCTGGCG CGGTGCTTAC ATCAAACTGT ACTGTGACT 2160
GCCGCGGGCG GACTTTGAGG CCGTGTGAGA CTGCGCATG GTGAGGCAAG TGGCCTGGCT 2220
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GCTTGGCTGC CTCACCCAC TGTCTTACCT GCTCTTCAAC CCCCCTTCC GGGATGACCT 2400
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GAGGGCAGAG GGATCTAGCC CAGCAGGTGG AGGCTTGTCA GGGGTGTGCG GCTTTCAGCC 2760
CTCTGGCTGC GCTTTTGTCT CACACGTGTA AATATCCCTC CCATTTCTTC TCTTCCCTCT 2820
TCTTCCCTTT CCTCTCTCCC CCTCGGTGAA TGATGGCTGC TTCTAAAAA AATACAAACA 2880
AAACTCAGCA GTGTGATCTA TAGCAGGATG GCCAGTCCCT TGGCTCCACT GATCAGCTCT 2940
CTCCTGTGAC CATCACCAC GGGTGCTCTT TGGCTGGGCT TTCCCTTGGC CTCTCTCAG 3000
TTCACTTGA TACTCTGCTT CTCTCTGTC ATGTCTGAAG CTGTGAGACA GAGACCTGGA 3060
CTTTTGTCTG CTTAAGGGAA ATGAGGGGAA TAAAGACAGT GAAGGGGTGG AGGGTGTGAT 3120
AGGGCAGCT GGCACAGGAG ACCTCACAGA GAAAGGCTG GAAGGTGATT TCCGTGTGTA 3180
CTCATGGATA GGTACAAAA TGTGTTCCAT GTACCTTAA YCTTGACATA TGCCATGCAT 3240
AAAGACTTCC TATTTAAATA AGCTTTGGA GAG 3273

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Seq ID NO: C174 DNA Sequence
Nucleic Acid Accession #: NM_130849

Coding sequence: 101..2044

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GGAGCTGGGG CTGCTTCTGG CTGTGCTGGT GGTGACGGCG ACGGCGTCCC CGCTCTGCTGG 180
TCTGCTGAGC CTGCTCACCT CTGGCCAGGG CGCTCTGAT CAAGAGGCTC TGGCGGGCCT 240
GTTAAATAAG CTGGCGGACC GTGTGCACTG CACCAACGGG CGGTGTGGAA AGTGCTGTCT 300
10 TGTGGAGGAC GCCCTGGGCC TGGGCGAGCC TGAGGGGTCA GGGCTGCCCC CGGGCCCGGT 360
CCTGGAGGCC AGGTACGTG CCCGCCCTAG TGCCGCCGCC GTCTGTATCC TCAGCAACCC 420
CGAGGGCACC TGTGAGGACA CTGGGCTGAC CCTCTGGGCC TCTCATGAGC ACCACCTCTT 480
GGCCCTGCTC GAGAGCCCCA AGGCCCTGAC CCGCGGCTGG AGCTGGCTGC TGCAGAGGAT 540
GCAGGCCCGG GCTGCCGGCC AGACCCCAAA GACGGCTGTC GTAGATATCC CTCAGCTGCT 600
15 GGAGGAGGCG GTGGGGCGGG GGGCTCCGGG CAGTGTCTGC GGGCTCCTGG CTGCCCTGCT 660
GGACCATGTC AGGAGCGGCT CTGTCTTCCA CGCTTGGCC AGCCCTCAGT ACTTCGTGGA 720
CTTTGTGTTT CAGCAGACAA GCAGCGAGGT CCTATGAGC CTGGCCGAGC TGTGAGCTT 780
GATGCACTGC CTGGGGGTGG GCAGGGAGGC CCACAGTAC CACAGTATC GGCACAGGGG 840
AGCCAGACCT CGGACCTG TGCCCTCAT CAGCTCCAGC AACAGTCCA GTGTGTGGGA 900
20 CACGATATGC CTGAGTGCCA GGGAGCTGAT GGCTGCATAT GGAAGTCTCG AACAGGCTGG 960
GGTGACCCCG GAGGCTTGGG CCCAACTGAG CCTTGGCTGC CTCCAACAGC AGCTGAGTGG 1020
AGCCTGCAAC TCCAGTCCA GCGCCCTCTT CCAGGACCAG CTCAGCCAGT CAGAGAGGTA 1080
TCTGTACGGC TCCCTGGCCA CGCTGCTCAT CTGCTCTGCG GGGTCTTTG GCCTCCTGCT 1140
CGTGAACCTG ACTGGCTGCA GGGGGGTGCG CCACTACATC CTGAGAGCTT TCTGAGCCT 1200
25 GGCAGTGGGT GCACTCACTG GGGAGCTGT CCGTCACTCG AGCCCAAGG TGTGGGGCT 1260
GCATACACAC AGCGAAGAGG GCTTCAGCCC ACAGCCCAAC TGGGCGCTCC TGGCTATGCT 1320
GGCCGGGCTC TAGGCTCTCT TCTTBTTTGA GAACCTCTTC AATCTCTGTC TGCCAGGGA 1380
CCCGAGGAGC CTGGAGGAGC GGCCCTGCGG CCACAGAGC CATAGCCAGC GGGGCCACAG 1440
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30 GGGCTCCCGC GCAGACCTGG TGGCGGAGGA GAGCCCGGAG CTGCTGAACC CTGAGCCAG 1560
GAGACTGAGC CAGAGTTGA GGTACTGACC CTATATGATC ACTCTGGGCG ACSCGCTGCA 1620
CAACTTTCGC GACGGCTTGG CGGTGGGCGC CGCTCTGCG TCCCTCTGGA AGACCGGCT 1680
GGCCACCTCG CTGGCCGTGT TCTGCACTGA GTTCCCAAC GAGCTGGGGG ACTTCGCGCG 1740
CTTGTGCTGC GGGGGCTGT CGTGGCGCCA AGCACTGCTG CTGAACCTGG CCTCGGCTG 1800
35 CACGGCTTTC GCTGGTCTCT ACGTGGCACT CGCGGTGGA GTGAGCGAGG AGAGCGAGGC 1860
CTGGATCTTG GAGTGGCCA CGGCTCTGTT CCTCTAGCTA GCACTCTGCG ACATGCTCC 1920
GGCGATGTTG AAGATACGGG ACCCGGCGCC CTGGCTCTTC TTCTGTGCTG ACAAGCTGG 1980
CCTGCTGGGC GGTGAGACCG TCTGCTGCT GCTGTCCCTG TAGAGGATG ACATCACTT 2040
CTGATACCTG GCTGAGTCC CCACTCTTGG ACTTAAGATC CCACACTTCA CAACCTTACA 2100
40 GCCCAGAAAC CAGAAGCCCC TATAGAGGCC CAGTCCCAA CTCAGTAAA GACACTCTTG 2160
TCCCTGGAAG AAAAAAAAAA AAAAAAAAAA AA 2192

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Seq ID NO: C175 DNA Sequence

Nucleic Acid Accession #: NM_018971

Coding sequence: 1..1128

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AAGCTGGCCA GCTCAGCCTG CTGTGCTGTC GTGAGCTAGG GGGCAACGT GCTGTTCGCG 120
CTGCTGATCG TCGGGGAGCC CAGCCTGCA CCGCCTCCGT ACTACCTGCT GCTGAGCTG 180
TGCTTGGCGG ACGGGCTGGG CGGCTGCGCC TGCTTCCCGG CGCTCATGCT GGGCGCGCG 240
CGTGGCGCGG CCGCGGCGGG GGGCGCGCGG GGGCGCGTGG GCTGCAAGCT GCTCGCTTC 300
CTGGCGCGGC TCTTCTGCTT CCAGCCGCCC TTCTCTGCTG TGGGCGTGGG GGTCAACCC 360
TACCTGGCCA CTGGCGACCA CCGCTTCTAT GCAGAGGACC TGGCGGCTG CGGTGCGGC 420
GCCATGCTGG TGTGCGCGCC CTGGGCGCTG GCGCTTCCC GTCAGTCTG 480
GACCGCGGTG GCGAGGAGCA GGCAGCGCGG TGCGCCCTGG AGCAGCGGCC CGAGCGGCC 540
CCCGGCGCGC TGGGCTTCTT GCTGTGCTG GCGGTGCTGG TGGGCGCTAC GCACTCTGCT 600
TACCTGCGCC TCTCTTCTT CATOCAGAC CGCGCGAAGA TGGCGCGGCC GCGCTGCTG 660
CCCGCGCTGA GCGAGGACTG GACCTTCCAC GGCCTGGCGG CCACCGGCCA GCGCGCGGCC 720
AACTGGAGCG CGGCTCTGG CCGCGGCGCC AGCGCGCGCG CGCTTGTGG CATCGGCC 780
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AGGCTGTGCA AGATGTTCTA CGCCTTCACG CTGCTTCTC TGCTCTCTG GGGGCGCTAC 900
GTCTGGGCA GCTACCTGG GGTCTGCTG CGGCGCGGCC CGCTCCCCCA GGCTTACCTG 960
65 ACGGCTCGCG TGTGCTGAC CTTCGAGCAG GCGCGCATCA ACCCGCTGCT GTGCTTCTC 1020
TTCAACAGGG AGCTGAGGGA CTGCTTCAGG GCGGAGTTCC CCGCTGCGCA GAGCCCGCG 1080
ACCACCCAGG CAGCCATACC CTGCGACCTG AAGGCGATTG GTTTATGA 1128

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Seq ID NO: C176 DNA Sequence

Nucleic Acid Accession #: NM_005631

Coding sequence: 290..2653

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GCCAGGGGCG CGGGCGCGCC GGAGCTTCCG GGGGGGCCCG GGCCTGGATT CTCTGGGCGC 180
ACAGGTGCGC TGAGCTGCTT CCGCGGCGCG CGAGGTCGTG CGTGTGGCGG GGGGGCTCG 240
AGGAGCAGCG GGGGCGCGCG GGGCTTTTTC TGAGTGGGCG GGTGTGGCCA TGGCCCTGCG 300
CGCGCCAGCG CGGGGGCGCG AGCTTCCGCT CCTGGGGCTG CTGCTGCTGC TGTGCTGCG 360
GGAGCTGGGC CGGGGGCGCG CTTGAGCGCG GAACGAGACC GGGCTGCGGC CTGAGGAGCG 420
GGGCGGGAGC GCGAGGAGGA GCGCGCGCTG GACTGGCCCT CCGCGCGCGC TGAGCCACTG 480
CGGCGGGGCT GCGCCCTGCG AGCGGCTGCG CTACACGCTG TGCTTGGGCT GGTGCTGCTC 540
CTACGGGCGC ACCTTCACAC TGCTGGCGCG AAGCTCGGAC TCCAGGAGG AAGCGCACG 600

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| | | | | | | | |
|----|-------------|-------------|-------------|------------|------------|------------|------|
| 5 | CAAGCTCGTG | CTCTGGTCGG | GCCTCCGGAA | TGCCCCCGC | TGCTGGGCAG | TGATCCAGCC | 660 |
| | CCTGCTGTGT | GCCGTATACA | TGCCCAAGTG | TGAGAATGAC | COGGTGGAGC | TGCCCAGCCG | 720 |
| | TACCCYCTGC | CAGGCCACCC | GAGGCCCTTG | TGCCATCGTG | GAGAGGGAGC | GGGGCTGGCC | 780 |
| | TGACTTCCTG | CGCTGCACTC | CTGACCGCTT | CCCTGAAGGC | TGCACGAATG | AGGTGCAGAA | 840 |
| | CATCNAATTG | AACAGTTTCAG | GCCAGTGCBA | AGTGCCCTTG | GTTCGGACAG | ACAACCCCAA | 900 |
| | GAGCTGGTAC | GAGGACGTGG | AGGGCTGDCG | CATCCAGTGC | CABAACCCGC | TCTTCACAGA | 960 |
| | GGCTGAGCAC | CAGGACATGC | ACAGCTACAT | CGGGCCCTTC | GGGGCCGTCA | CGGGCCCTTG | 1020 |
| | CAGCTCTTTC | ACCCTGGCCA | CATTCTGTGC | TGACTGGCGG | AACTCGAATC | GCTACCCCTG | 1080 |
| 10 | TGTTATCTTC | TTCTACGTCA | ATGCGTGTCT | CTTGTGGGC | AGCATTGGCT | GGCTGGCCCA | 1140 |
| | GTTCATGGAT | GGTGCCCGCC | GAGAGATCGT | CTGCCGTGCA | GATGGCACC | TGAGGCTTGG | 1200 |
| | GGAGCCCAAC | TCCCAATGAGA | CTCTGTCTTG | CGTCATCATC | TTTGTACATG | TGTACTACGC | 1260 |
| | CCTGATGGCT | GGTGTGGTTT | GGTTTGTGGT | CCTCACCTAT | GCCTGGCACA | CTTCTTCAA | 1320 |
| | AGCCCTGGGC | ACCACCTACC | AGCCTCTCTC | GGGCAAGACC | TCTTACTTCC | ACCTGCTCAC | 1380 |
| 15 | CTGGTCACTC | CCCTTTGTCC | TCACTGTGGC | AATCCTTGCT | GTGGCCAGGG | TGGATGGGGA | 1440 |
| | CTCTGTAGAT | GGCATTTGTT | TTGTGGGCTA | CAAGAACTAC | CGATACCGTG | CGGGCTTCGT | 1500 |
| | GCTGGCCCCA | ATCGGCGCTG | TGCTCATOGT | GGGAGGCTAC | TTCCCTATCC | GAGGAGTCAT | 1560 |
| | GACTCTGTTC | TCCATCAAGA | GCAACCAACC | CGGGCTGCTG | AGTGAGAGGG | CTGCCAGCAA | 1620 |
| | GATCAAGCAG | ACCATGCTGC | GCCTGGGCAT | TTTTGGCTTC | CTGGCCCTTG | GCTTTGTGCT | 1680 |
| 20 | CATTACCTTC | AGCTGCTACT | TCTACGACTT | CTTCAACACG | GCTGAGTGGG | AGCGCAGCTT | 1740 |
| | CCGGGACTAT | GTGCTATGTC | AGGCCAATGT | GACCATCGGG | CTGCCACCA | AGCAGCCCAT | 1800 |
| | CCCTGACTGT | GAGATCAABA | ATCGCCCTGAG | CTTCTCTGGT | GAGAAGATCA | ACCTGTTTGC | 1860 |
| | CATGTTTGG | ATGCGCATCG | CCATGAGCAC | CTGGGTCTGG | ACCAAGGCCA | CGCTGCTCAT | 1920 |
| | CTGGAGGCGT | ACCTGTGTGA | GGTTGACTGG | GACAGATGAC | GATGAGCCAA | AGCGGATCAA | 1980 |
| 25 | GAAGAGCAAG | ATGATGTGCA | AGGCCCTCTC | TAAGCGGCAC | GAGCTCTTGC | AGAACCCAGG | 2040 |
| | CCAGGAGCTG | TCCCTCAGCA | TGCACACTGT | GTCCACGAC | GGGCCCTGGG | CGGGCTTGGC | 2100 |
| | CTTTGACCTC | AATGAGCCCT | CAGCTGATGT | CTCTCTTGCC | TGGGCCCGAG | ATGTCACCAA | 2160 |
| | GATGGTGGCT | CGGAGAGGAG | OCATACTGCC | CCAGGATATT | TCTGTCAACC | CTGTGGCAAC | 2220 |
| | TCCAGTCCCC | CCAGAGGAAC | AAGCCAACTT | GTGGCTGGTT | GAGGCAGAGA | TCTCCCCAGA | 2280 |
| 30 | GCTGCAGAAG | CGCCTGGGCC | GGAGGAAGAA | GAGGAGGAAG | AGGAAGAGGG | AGGTGTGCCC | 2340 |
| | GCTGGGCGCG | CCCCCTGAGC | TTACCCCGCC | TGCCCTTGCC | CCAGTACCA | TTCTCTGACT | 2400 |
| | GCCTCAGCTG | CCCCCGCAGA | AATGCTCTGT | GGCTGCAGGT | GCCTGGGGAG | CTGGGAGCTC | 2460 |
| | TTGCCGACAG | GGAGCGTGG | CCCTGGTCTC | CAACCCATTG | TGCCCGAGGC | CCAGTCCCCC | 2520 |
| | TCAGGATCCA | TTTCTGCCCA | GTGCACCGGC | CCCCGTGGCA | TGGGCTCATG | GCCGCCGACA | 2580 |
| 35 | GGGCCGTGGG | CCATTTCAC | CCCGCACCAA | CCTGATGGAC | ACAGAACTCA | TGGATGCAGA | 2640 |
| | CTCGGATCTC | TGAGCCGTCA | GAGCAGGACC | TGGGACAGGA | AAGAGAGGAA | CCATATACCT | 2700 |
| | CAAGGCTCTT | CTTCTCCACC | GAGCATGCTT | CCCTAGGATC | CGTCTCTCCA | GAGAACCCTG | 2760 |
| | GGGCTGACTG | CCCTCCGAG | AGAGTTCTGG | ATGTCTGGCT | CAAGAGCAGA | GGACTGTGGG | 2820 |
| | AAAGAGCCTA | ACATCTCCAT | GGGGAGGCGT | CACCCAGGGG | ACAGGGCCCT | GGAGCTCAGG | 2880 |
| 40 | GTCTTGTCTT | CTGCGCTGCC | AGCTGCAGCC | TGGTTGGCAG | CATCTGCTCC | ATCGGGGAGG | 2940 |
| | GGGGTATGCA | GAGCTTGTGG | TGGGGCAGGA | ACGGTGGAGG | CAGAGGTGAC | AGTTCGCCAG | 3000 |
| | GTGGGCTTTG | GTGGCCAGGG | AGGCAGCCTA | GCCTATGCTT | GGCAGATGAG | GGCTGGGCTG | 3060 |
| | CGTTTCTGCG | GCTGATGGGT | GCCCTTTCCT | GGCAGTCTCA | GTCCAAAGT | GTGACTGTGG | 3120 |
| | TCAATAGTCC | TTTGTCTAAG | TAGGGCCAGG | GCACCGTATT | CCTCTCCAG | GTGTTTGTGG | 3180 |
| 45 | GGCTGGAAGG | ACCCTGCTCC | ACAGGGGCCA | TGTCTCTCT | TAATAGGTGG | CACTACCCCA | 3240 |
| | AAACCATCTT | TGTTCTCTCT | ATATCTCTCT | TCTCTCTTTC | CATTTCAGTT | CAGTTTCAAG | 3300 |
| | GGTGCCAAAC | TCITTTGCGT | TCCTTTTGT | TGATGAGGAC | CCAGAGCTGC | TGCACACACT | 3360 |
| | CACCTCTAAC | CCCTCCGCTT | CGCTGCTGGG | CCCATCTCC | ACAGGAGAGA | CTGGTTCCGC | 3420 |
| | TCTAGGGGCT | CAGTCTGGAG | TGGGATAGGA | GCAGTGAATG | ACAAAGCCTC | TGAAAGATGC | 3480 |
| 50 | ATCATCTCTT | CTCTCACACC | ATTAGTGGG | GGATGGGTCC | TCTAGACTTG | AGGGGCTACC | 3540 |
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| | GGGTGAGGAG | ATTCCCACTT | TCCATAGCCT | CCAAACATGT | TCCCAAGGCC | CCACTTTCAA | 3660 |
| | GAAATCAGACA | GCAGGAGGCC | ATAGATGCTG | GCTGGGTTCC | AGGTTATGGG | GAGAAGAAAT | 3720 |
| 55 | ACAGTCAATA | AAAGGTTTTT | GTATAAAAAA | AAAAAATAAA | AAAAAATAAA | AAAAAATAAA | 3780 |
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Seq ID NO: C177 DNA Sequence
Nucleic Acid Accession #: AK094595
Coding sequence: 1..2853

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| | ATGGGGGCCC | GGAGCGGAGC | TCGGGGCGCG | CTGCTGCTGG | CACCTGCTGCT | CTGCTGGGAC | 60 |
| | CCGAGGCTGA | GCCAGCGAGG | TAGGAAGCGA | TCGGGTGAGG | TGCTCCCTGA | CTCCTTCCCG | 120 |
| 65 | TCAGCGCCAG | CAGAGCGCGT | GGCCTACTTC | CTGCAGGAGC | CACAGGAAGC | CTACATTGTG | 180 |
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| | ACCCTGGGGG | CGCGGGGCGG | CCTGCGGGTG | CGCGAGGTGC | AGATCGAGGT | GTGCGGGCAG | 360 |
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| 70 | GGGGGACCA | CCAGAGTTCG | CCAGGCTTAC | GTCCGATCG | CCTACCTGGG | CAGAACTTTC | 480 |
| | GATCAGGAGC | CTCTGGGCAA | GGAGGTGCCC | CTGGACATG | AGGTTCTCCT | GCACTGCCGC | 540 |
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| | CCACCCAGG | ACACCAACTT | CCTGCTCACC | ATGACCCACA | ACCTCATCAT | CCGCCAGGCC | 660 |
| | CGCTGTGCGG | ACACTGGCAA | CTATACTGCG | GTGGCCAGGA | ACATGCTGGC | CAAAACCGCG | 720 |
| 75 | AGCACCACTG | CGCTGCTCAT | GGTCTACGTC | AATGGCGGCT | GGTCCAGCTG | GGCAGAGTGG | 780 |
| | TCACCTGCTC | CCAACCGCTG | TGGCCGAGGC | TGGCAGAGGC | GCACCCGAGC | CTGCACCAAC | 840 |
| | CCGCTCTCAC | TCAACCGGAG | GGCTTCTGTC | GAGGGCCAGG | CATTCCAGAA | GACCGCCTGC | 900 |
| | ACCACCATCT | GCCCACTGCA | TGGGGCGTGG | ACGGAGTGGA | GCAAGTGGTC | AGCCTGCAGC | 960 |
| | ACTGAGTGTG | CCCATCTGGC | TAGCCGCGAG | TGCATGGGCG | CCCCACCCCA | GAAACGAGGC | 1020 |
| 80 | CGTGACTGCA | CGGGAGCGCT | GCTCGACTCT | AAGAACTGCA | CAGATGGGCT | GTGCATGCAA | 1080 |
| | AATAAGAAAA | CTCTAAGCGA | CCCAACAGCG | CACCTGCTGG | AGGCCTCAGG | GGATGGGCGG | 1140 |
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| | GTGGTGGTGT | ACCCTGGCAA | CTGCCCTGAC | TTGACACAG | ACATCTCTGA | CTCATCTGCT | 1260 |
| | GCCTGACTG | GTGGTTTCCA | CCCGTCAAC | TTTAAAGCGG | CAAGGCCAGG | CAACCCGAG | 1320 |
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 TTGATAAGT CCTTTTAAA A 3501

Seq ID NO: C178 DNA Sequence
 Nucleic Acid Accession #: NM_004625
 Coding sequence: 310..1359

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 65 GCTCCCCAGG CCAGCGGCTG TGACCTCATG TGCTGTGGGC GTGGCTACAA CACCCACCAG 1260
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 70 TCGTGGGGG AAAAAAATC TCTCAGAGCC CTCACATATT CTGTTCCACA CCAATGCTG 1560
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Seq ID NO: C179 DNA Sequence OBR3
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 Coding sequence: 71..4654

75
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 GGCCTGGGTG CCTGTCACTT ACCTGTGAGT CGCCCTGCCC TGCTACTTGC TCTAAGTGG 240
 GCACCATGTT CGTGGCTACA TCATCCTCTC CCACCTGTCC AAGCTCAGA TGGTCTGGG 300

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| 5 | TGCTCTGCTG | TGGTGCCTCT | CCTGGGCGGA | CCTTTTTTAC | TCCTTCCATG | GCCTGGTCCA | 360 |
| | TGGCGGGGCC | CCTGCCCGTG | TTTTCTTTGT | CACCCCTTGT | GTGGTGGGGG | TCACCATGCT | 420 |
| | GCTGGCCACC | CTGCTGTATC | AGTATGAGCG | GCTGCAGGGC | GTACAGTCTT | CGGGGGTCTT | 480 |
| | CATTATCTTC | TGGTTCCTGT | GTGTGGTCTG | CGCCATCGTC | CCATTCCGCT | CCAAGATCTT | 540 |
| | TTTAGCCAAAG | GCAGAGGGTG | AGATCTCAGA | CCCTTCCGCG | TTCAACCACT | TCTACATCCA | 600 |
| | CTTTGCCCTG | GTACTCTCTG | CCCTCTATCT | GGCCCTGCTC | AGGGAGAAAC | CTCCATTTTT | 660 |
| | CTCCGCAAGG | AATGTGAGCC | CTAACCCCTA | CCCTGAGACC | AGCGCTGGCT | TTCTCTCCCG | 720 |
| | CCTGTTTTTC | TGGTGGTTCA | CAAGATGGGC | CATCTATGGC | TACCGGCATC | CCCTGGAGGA | 780 |
| 10 | GAAGGACCTC | TGGTCCCTAA | AGGAAGAGGA | CAGATCCAG | ATGGTGGTGC | AGCAGCTGCT | 840 |
| | GGAGGACATG | AGGAAGCAGG | AAAAGCAGAC | GGCAGACAC | AAAGCTTCAG | CAGCACCTCG | 900 |
| | GAAGAAATGCC | TCCGGGAGGG | ACGAGGTGCT | GCTGGGTGCC | CGGCCACAGC | CCCGGAAGCC | 960 |
| | CTCTTCTCTG | AAGGCCCTGC | TGGCCACCTT | CGGCTCCAGC | TTCTCTATCA | GTGCTGCTT | 1020 |
| | CAAGCTTATC | CAGGACCTGC | TCTCTTCTAT | CAATCCACAG | CTGCTCAGCA | TCTGTATCAG | 1080 |
| 15 | GTATTATCTC | AACCCCATGG | CCCCCTCTCG | GTGGGCTTTC | CTGGTGGCTG | GGCTGATGTT | 1140 |
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| | TGGGGTGAAG | TTTGTGACTG | GGATCATGGG | TGTCTCTTAC | AGGAAGGCTC | TGGTTATCAC | 1260 |
| | CAACTCAGTC | AAAGTCGCGT | CCACTGTGGG | GGAAATTGTC | AACCTCATGT | CAGTGGATGC | 1320 |
| | CCAGCGCTTC | ATGGACCTTG | CCCCCTTCTT | CAATCTGCTG | TGGTCAGCAC | CCCTGCAGAT | 1380 |
| 20 | CATCTGCGCG | ATCTGATCTC | TCTGGCAGAA | CCTAGTCCCT | TCTGTCTTGG | CTGGAGTCCG | 1440 |
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| | GGTAAAGCAA | ATGAATATGA | AGGACTCGCG | CATCAAGCTG | ATGAGTGAGA | TCTTGAACGG | 1560 |
| | GTCTAAGGTG | CTGAAGCTGT | ACGCTCTGGG | GCCTAGCTTC | CTGAAGCAGG | TGGAGGGCAT | 1620 |
| | CAGGCAAGGT | GAGCTCCAGC | TGCTGGGCAC | GGCGGCTTAC | CTCCACACCA | CAACCACTTT | 1680 |
| 25 | CACCTGGATG | TGCAGCCCTT | TCTTGGTGAC | CCTGATCACC | CTCTGGGTGT | ACGTGTACGT | 1740 |
| | GGACCCAAAC | AATGTGCTGG | AGGCCGAGAA | GGCCTTTGTG | TCTGTGTCTT | TGTTTAATAT | 1800 |
| | CTTAAGACTT | CCCCCTCAAC | TGCTGCCCCA | GTTAAICAGC | AACCTGACTC | AGGCCAGTGT | 1860 |
| | GTCTCTGAAG | CGGATCTCAG | AATTCCTGAG | CTAAGAGGAA | CTTGACCCCT | AGAGTGTGGA | 1920 |
| | AAGAAAGACC | ATCTCCCCAG | GCTATGCCAT | CACCATACAC | AGTGGCAOCT | TCACTCTGGC | 1980 |
| 30 | CCAGGACCTC | TGCCCACTTC | TGCACAGCTT | AGACATCCAG | GTCCCGAAGG | GGGCACTGCT | 2040 |
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| | CCAGTGTCTA | GAGGGCGGGG | AGAATCTCAG | CGTGGGCCAG | AGGCAGCTCG | TGTGCTGGCC | 4380 |
| 70 | CCGAGCCCTG | CTCCGCAAGA | GCGCATCCCT | GGTTTATGAC | GAGGCCACAG | CTGCCATCBA | 4440 |
| | CCTGGAGACT | GACAACCTCA | TCCAGGCTAC | CATCCGACCC | CAGTTTGATA | CCTGCACTGT | 4500 |
| | CCTGACCATC | GCAACCCGGC | TTRACACTAT | CATGCACTAC | ACCAGGGTCC | TGGTCTCGGA | 4560 |
| | CAAGGAGGTA | GTAGCTGAAT | TTGATTCTCC | AGCCAACTCT | ATTGCACTTA | GAGGCATCTT | 4620 |
| | CTACCGGATG | CGCAGAGATG | CTGGACTTGC | CTAAATATA | TTCTTGAGAT | TTCTCTCTGG | 4680 |
| 75 | CCTTCTCTGG | TTCTCATCAG | GAAGGAAATG | ACAACCAATA | TGTCCGCGAG | ATGGACTTGA | 4740 |
| | TAGCAAAAC | TGGGGGCACC | TTAAGATTTT | GCACTGTAA | AGTGCCTTAC | AGGGTAACCTG | 4800 |
| | TGCTGAATGC | TTTAGATGAG | GAAATGATCC | CCAAGTGGTG | AATGACACGC | CTAAGGTCTAC | 4860 |
| | AGCTAGTTTG | AGCCAGTTAG | ACTAGTCCCG | CGGTCTCCCG | ATTCCCAACT | GAGTGTATT | 4920 |
| | TGCACACTGC | ACTGTTTCTA | AATAACBATT | TTATGAAATG | ACCTCTGTCC | TCCCTCTGAT | 4980 |
| 80 | TTTTCATATT | TTCTTAAAGT | TTCTTCTCTG | TTTTTAAATA | AAAAGCTTTT | TCTCTCTGGA | 5040 |
| | ACAGAAAGCA | GCTGCTGGGT | CAGGCCACCC | CTAGGAACCT | AGTCTGTGAC | TCTGGGGTGC | 5100 |
| | TGCTTGAATC | CATTAAATAT | GGGAGTACTG | ATGAATATAA | ACTACATGGT | CAACAGTAAA | 5160 |
| | AAAAAAAAAA | AAAAAA | | | | | 5176 |

Seq ID NO: C180 DNA Sequence

Nucleic Acid Accession #: NM_004626
Coding sequence: 124..1188

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5      1      11      21      31      41      51
      |      |      |      |      |      |
      TAACCCGCGG CCTCCGCTCT CCCCAGGCTGC AGGCGGCGTG CAGGACCAGC GGCGGCGGTG 60
      CAGGCGGAGG ACITCGGCGC GGTCTCTCTT GGGTGTGACC CCGGGCGCGC CCGCGCGCGG 120
      ACATGAGAGG CGCGCGCGCA GGTCTGCGAG GCGCTGCTCT TCGCCCTGGC GCTCCAGACC 180
      GGCGTGTGCT ATGGCATCAA GTGGCTGGCG CTGTCCAAGA CACCATCGGC CCTGGCACTG 240
10     AACAGAGCGC AACACTGCAG GCAGCTGGAG GGTCTGGTGT CTGCACAGGT GCAGCTGTGC 300
      CGCAGCAACC TGGAGCTCAT GCACACGGTG GTGCACGCGG CCCGCGAGGT CATGAAGGCC 360
      TGTGCGCGGG CCTTGGCGGA CATGCGCTGG AACTGCTCCT CCATGTAGCT CGCCCCAAC 420
      TATTGTCTTG ACCTGGAGAG AGGAGCTCGG GAGTGGGCTT TCGTGTATGC GCTGTGCGGC 480
      GCGCGCATCA GCCAGGCCAT CGCGCGGGCC TGCACTCCG GCGACCTGCC CGCTGCTCC 540
15     TCGCGCCCGC TCCAGGTGTA GCCACCGGGC CCGGGGAACC GCTGGGGAGG ATGTGCGGAC 600
      AACCTCAGCT ACGGGCTCCT CATGGGGGCC AAGTITTCGG ATGCTCTTAT GAAGGTGAAA 660
      AAAACAGGAT CCAAGCCCAA TAAACTGATG CGTCTACACA ACAGTGAAGT GGGGAGACAG 720
      GCTCTGCGCG CCTCTCTGGA AATGAAGTGT AAGTGCCATG GGGTGTCTGG CTCTGTCTCC 780
      ATCCGCACCT ACCTGGAAGG GCTCAGGAG CTGCAAGATG TGGCTGCTGA CCTCAAGACC 840
20     CGATACCTGT CGGCCACCAA GGTAGTGCAC CGACCCATGG GCACCGCAA GCACCTGGTG 900
      CCCAGAGACC TGGATATCCG GCTTGTGAAG GACTCGGAAC TCGTCTATCT GCAGAGCTCA 960
      CCTGACTTCT CATTGGCGGA TGAGAAGGTG GGCTCCACG GGACACAAGA CAGGCACTGC 1020
      AACAGACAT CCACCGGAGG CGACAGCTGC GACTTATGT GCTGCGGGCG TGGCTACAC 1080
      CCTACACAG ACCCGGTGGT CGACGGGTGC CACTGTAAAT ACCACTGGTG CTGCTACGTC 1140
25     ACCTGGCGCA GGTGTGAGCG TACCGTGGAG CGCTATGTCT GCAAGTGAGG CCTGCGCTC 1200
      CGCCCCACGC AGGAGCGAGG ACTCTGTCTA AGGACCTCA GCAACTGGGG CCAGGGGCC 1260
      GGAGACATCT CATGGAGCTC TGCTTGTGAA TTCCAGATGC CAGGCATGGG AGGCGGCTTG 1320
      TGCTTGGCTT TCACTTGAAA GCCACCGGGA ACAGAAAGTC TGGCCACCTT GGAAGGAGGG 1380
      CAGGACATA AAGGAACCG ACAAGATTAA AAATAACTTG GCAGCCTGAG GCTCTGAGT 1440
30     GCGCCAGGC TGGTGTAAAG AGCGGGGCTT GGGATCGGTG AGACTGATC AGACTTGACC 1500
      TTTCAGGGCC ACAGAGACCA GCCTCCGGGA AGGGGTCTGC CGGCTTCTT CAGAAATGTC 1560
      TGGGGGACCC CTGGCCACAC CTGGGGTCTT GAGCCTGCTG GCGCCACCAC ATGGAATCAC 1620
      TAGCTTGGGT TGTAAATGTT TTCTTTTGT TTGTGCTTT TCTTCTTTT GATGTGTGAA 1680
      GCTACAGAAA TATTATATA ACATAGCTTT TTCTTTGGGG TGGCACTTCT CAATTCCTCT 1740
35     TTATATATTT TATATATATA AATATATATG TATATATATA ATGATCTCTA TTTTAAACT 1800
      AGCTTTTAA GCAGCTGTAT GAAATAAATG CTGAGTGAGC CCCAGCCCGC CCCTGCAGTT 1860
      CCGCGCTCG TCAAGTGAA TCGGCAGACC CTGGGGCTGG CAGAGGGAGC TCTCCAGTTT 1920
      CAGGCA 1927

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Seq ID NO: C181 DNA Sequence
Nucleic Acid Accession #: NM_031866
Coding sequence: 6..2090

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45     1      11      21      31      41      51
      |      |      |      |      |      |
      ACAGCATGGA GTGGGGTTAC CTGTGGAG TGACCTCGCT GCTGGCGGCC TTGGCGCTGC 60
      TGACGCTCTC TAGCGCGCTT GCGGCGCGCT CGGCCAAGGA GCTGGCATGC CAGAGATCA 120
      CCGTGCGGCT GTGTAAAGGG ATCGGCTACA ACTACACCTA CATGCCAAT CAGTTCAACC 180
      ACAGACGCA AGACGAGGCG GGCTTGGAGG TGACCAAGT CTGGCGGCTG GTGGAGATCC 240
50     AGTGTGCGCC CGATCTCAAG TTCTTCTGT GACAGATGTA CAGCGCCATC TGCTAGAGG 300
      ACTACAGAA GCGCTGCGCG CCCTGCGGCT CGGTGTGCGA GCGGCGGAG GCGGCTGCG 360
      CGCGCTCAT GCGCCAGTAC GGTCTGCGCT GCGCGGACG CATGCGCTGC GACGCGCTGC 420
      CGAGCAGAG CAACCTTAC ACCTGTGCA TGGACTCAA CCGCACCGAC CTACCCACC 480
      CCGCGCGCG CCGCGCGCG CCGCGCGCG CCGCGCGCG CCGCGCGCG CCGCGCGCG 540
55     GCAGCGCGCG CCGCGCGCG CCGCGCGCG CCGCGCGCG CCGCGCGCG CCGCGCGCG 600
      GTGGCGCGCG GCGCGCGCG GCGCGCGCG CTGCGCGCG CCGCGCGCG GCGAGGCGCG 660
      GCGCGCGCG GCGCGCGCG GCTCTCTGCG AGCGCGGCTG CCAAGTGCAG GCGCTATGG 720
      TGAGCGGTGC CAGCGAGCGC CACCGCTCTT ACACCGCGT CAGACAGGC CAGATCGCTA 780
      ACTGCGGCT CTCTTCCAC AACCGCTTT TCAGCCAGGA CAGCGCGCG TTCAACGCTT 840
60     TCTGGATGCG CATTGCTGCG GTGCTGCTT TCGTGTCCAC CTTCGCCACC GTCTCCACCT 900
      TCTTATGGA CATGAGCGCG TTCAATACC CGAGCGGCG CATTATCTT CTCTCGGCT 960
      GCTACCTCTT CTGTGCGGTG GGCTACCTAG TGCGCTGGT GCGCGGCGAC GAGAAGGTGG 1020
      CGTGCAGCGG TGGCGCGCG GCGCGCGCG GCGCTGGGG CCGCGGCGCG GCGCGCGCG 1080
      GCGCGCGCG GCGCGCGCG GCGCGCGCG GCGCGCGCG GCGCGCGCG TACGAGGAGC 1140
65     TGGGCGCGGT GAGCAGCAG GTGCGTACG AGACCAACCG CCGCGCGCTG TGCAACGTGG 1200
      TCTTCTGCT GTCTACTTC TTGCGCATG CAGCTCCAT CTGGTGGTG ATCTGTGCG 1260
      TCACATGTTT CTTGCGCGCC GGTATGAAGT GGGCAACGA AGCCATCGCC GGCTACTCGC 1320
      AGTACTTCCA CTTGGCGCGG TGGCTTGTGC CCAGCTCAA GTCCATCGCG GTGCTGGCGC 1380
      TCAGTCTGGT GAGCGCGGAC CCGTGGCGG GCATCTGCTA CTTGGGCAAC CAGAGCCTGG 1440
70     ACAACCTGCG CGGCTTCTGT CTGGCGCGCG TGGTCACTA CTTCTTCATC GGCACCATGT 1500
      TCTGCTGGC CGGCTTCTGT TCCCTGTTCC GCATCGCTC GGTCAATAG CAACAGGAG 1560
      GCGCCACCAA GACGCAAG CTGGAGAGC TGATGATCG CTTGGGCGTG TTCACGTTGC 1620
      TCTACACGCT GCGCGCGCG GTGGTGGTGG CTTGCTCTT CTACGAGCAG CACCAACGCG 1680
      CGGCTGGGA GCGCTTCTGT AACTGCGCGT GCTGCGGGA CTTGCAAGCC GACCGGCGC 1740
75     GCAGCGCGCA CTACGCGCTC TTCTGCTCA AGTACTTCT GTGCTTAGTG GTGGGCTCA 1800
      CTTGCGGCTG GTGGCTGGG TCGCGCAAGA GCTGGAGTC CTGGGCTCC CTGTGCAACC 1860
      GCTGCTGCTG GCGCGAGCAG GCGCGCGCG TGGGCGGGGG CCGCGCGCGC ACAGCGCGCG 1920
      GGGGTGGCGG CCGCGCGCGG GCGCGCGCG GCGCGGAGCC CCGCGCGCGC GGGGGGCGG 1980
      GCGCGCGCG GCGCTTCTCT TACAGCAGC TCAGCACTGG CTTGACCTGG CGTTCGCGCA 2040
80     CGGCGAGCTC CGTGTCTTAT CCAAGCAGA TGCCATTGTC CAGGCTCTGA GCGGAGGGGA 2100
      GGGGCGCGCC AGGAGGGGTG GAGAGGGGCG CAGAGAGACC CAAGTGCAGC GAAGGAGCAC 2160
      TTGATGGGCT GAGGTTCCCA CCCCTTCACA GTGTGATTG CTATTAGCAT GATAATGAAC 2220
      TCTTAATGTT ATCCATTAGC TGGGACTTAA ATGACTCACT TAGAACAAAG TACCTGGCAT 2280
      TGAAGCCTCC CAGACCCAGC CCCTTTTCTT CCATTGATGT GCGGGGAGCT CTTCCGCGCA 2340

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| | | | | | | | |
|----|-------------|------------|-------------|------------|------------|-------------|------|
| 5 | CAGGTTAATT | TCTGTTGGCT | GAGGAGGGTG | GACTCIGCGG | CGTTTCCAGA | ACCCGAGATT | 2400 |
| | TGGAGCCCTC | CCTGCTGCA | CTGGCTGGG | TTTGCACTCA | GATACACAGA | TTTCACCTGG | 2460 |
| | GAGAACCTCT | TTTCTCCCT | CGACTCTTCC | TACGTAAACT | CCCACCCCTG | ACTTACCCCTG | 2520 |
| | GAGGAGGGGT | GACGCCCAAC | TGATGGGATT | GCACGGTTTG | GGTATTCTTA | ATGACCCAGG | 2580 |
| | AAATGCCTTA | AGTAAACAAA | CAAGAAATGT | CTTAATTATA | CACCCCAAGT | AAATACGGGT | 2640 |
| | TTCTTACATT | AGAGGATGTA | TTTATATAAT | TATTTGTTAA | ATTGTAAAAA | AAAAAAGTGT | 2700 |
| | AAAAATATGA | TATATCCAAA | GATATAGTGT | GTACATTTTT | TTGTAAAAAG | TTTAGAGGCT | 2760 |
| | TACCCCTGTA | AGAACAGATA | TAAGTATTTCT | ATTTTGTCAA | TAAATGACT | TTTGATAAAT | 2820 |
| 10 | GATTTAACCA | TTGCCCTCTC | CCCGCCTCT | TCGAGCTGT | CACCTTTAAA | GTGCTTGCTA | 2880 |
| | AGGAGCATG | GGGAAAATGG | ACATTTTCTG | GCTTGTCAIT | CTGTACACTG | ACCTTAGGCA | 2940 |
| | TGGAGAAAAAT | TACTTGTATA | ACTCTAGTTC | TAAAGTTGTT | AGCCAAGTAA | ATATCATTGT | 3000 |
| | TGAACCTGAA | TCAAAATGTA | GTITTTGAC | CTTCCCAAAA | GACGTTGTTT | TTTATGGGAG | 3060 |
| | CTCTTTCTG | ATCCATGGAT | AACAATCTC | ACTTTAGTGG | ATGTAAATGG | AACTTCTGCA | 3120 |
| 15 | AGGCACTAAT | TCCCTTAGG | CCTTGTATT | TATCCTGCAT | GGTATCACTA | AAGGTTTCAA | 3180 |
| | AACCTGAAA | AAAAA | | | | | 3195 |

Seq ID NO: C182 DNA Sequence
Nucleic Acid Accession #: XM_050625
Coding sequence: 222..1109

| | | | | | | | |
|----|------------|------------|------------|-------------|-------------|------------|------|
| 20 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | CAGGTTGCGA | GCCCCCGGA | GCTGCGCGG | GGCTTGCAGC | GCCTCGCCCG | CGCTGTCTCT | 60 |
| 25 | CGGTTGTCCC | GCTTCTCCCG | GCCCCAGCGG | CCGGCTGCCA | GCTTTTCGGG | GCCCCGAGTC | 120 |
| | GCACCCAGCG | AAGAGAGCGG | GCCCCGAGCA | AGCTCGAAGT | CCGGCCGCGT | CGCCCTTCCC | 180 |
| | CGCTCCGCT | CCCTCTGCCC | CTCGGGGTC | GCGGCCCCAC | GATGCTGCAG | GGCCCTGGCT | 240 |
| | CGCTGCTGCT | GCTCTTCTCT | GCTTCGCACT | GCTGCTGGG | CTCGCGCGCG | GGGCTCTTCC | 300 |
| | TCCTTGGCCA | GCCGCACTTC | TCCTACAAGC | GCAGCAATTG | CAAGCCCATC | CTGCCCCACC | 360 |
| 30 | TGCAGCTGTG | CCAGCGCATC | GAATACGAGA | ACATGCGGCT | GCCCCAACCTG | CTGGGCCACG | 420 |
| | AGACCATGAA | GGAGGTGCTG | GAGCAGGCGG | GCGCTTGGAT | CCGCTGTGTC | ATGAAGCAGT | 480 |
| | GCCACCCGGA | CACCAAGAAG | TTCTGTGCT | CGCTCTTGGC | CCCGCTCTGC | CTCGATGACC | 540 |
| | TAGACGAGAC | CATCCAGCCA | TGCCACTGCG | TCTGGGTGCA | GGTGAAGGAC | CGCTGCGCCC | 600 |
| | CGCTCATGTC | CGCTTGGGC | TTCCCTGGC | CCACATGCT | TGAGTGCGAC | CGTTTCCCCC | 660 |
| 35 | AGGACAACGA | CCTTTGCATC | CCCTTGCCTA | GCAGCGACCA | CCCTCTGCCA | GCCACCGAGG | 720 |
| | AACTTCCAAA | GGTATGTGAA | GCCTGCAGAA | ATAAAATGA | TGATGACAA | GACATAATGG | 780 |
| | AAACCTTTG | TAAAAATGAT | TTTCACTGA | AAATAAAGT | GAAGGAGATA | ACCTACATCA | 840 |
| | ACCGAGATAC | CAAAATCATC | CTGGAGACCA | AGAGCAAGAC | CATTTACAA | CTGAACCGTG | 900 |
| | TGTCCGAAG | GGACCTGAAG | AAATCGGTGC | TGTGCTCAA | AGACAGCTTG | CAGTGCACTT | 960 |
| 40 | GTGAGGAGAT | GAACGACATC | AACGCGCCCT | ATCTGTGTCAT | GGGACAGAAA | CAGGGTGGGG | 1020 |
| | AGCTGGTGAT | CACCTCGGTG | AAGCGGTGGC | AGAAGGGGCA | GAGAGAGTTC | AAGCGCATCT | 1080 |
| | CCCGCAGCAT | CCGCAAGCTG | CAGTGCTAGT | CCCGCATCC | TGATGGCTCC | GACAGCGCTG | 1140 |
| | CTCCAGAGCA | CGGCTGACCA | TTTCTGCTCC | GGGATCTCAG | CTCCGCTTCC | CCAGCACAC | 1200 |
| | TCCTAGCTGC | TCCAGTCTCA | GCTTGGGCG | CTTCCCTCTG | CCTTTTCAC | GTTCATCTCC | 1260 |
| 45 | CCAGCATTTT | CTGAGTTATA | AGGCCACAGG | AGTGGATAGC | TGTTTTCACC | TAAAGGAAAA | 1320 |
| | GCCCAACCGA | ATCTTGTAGA | AATATTCAAA | CTAATAAAAT | CATGAATATT | TTTATGAAGT | 1380 |
| | TT | | | | | | 1392 |

Seq ID NO: C183 DNA Sequence
Nucleic Acid Accession #: NM_001306.1
Coding sequence: 199..861

| | | | | | | | |
|----|------------|------------|------------|------------|------------|-------------|------|
| 50 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | AATTGGGCHC | GAGGGCAGGT | GCAGGGGCAC | GCGGCGAGAG | CGTATGGAGC | CGAGCGTTTA | 60 |
| 55 | CGCGCGCGCG | TGGTGGAGTC | AGTCCGTCCG | TCCGTCGGTC | CGTGGGGGCG | CGGCAAGCTCC | 120 |
| | CGCCAGGCCC | AGCGGCCCCG | GCCCCCTGTC | TCCCCGCAAC | CGGAGCCACC | CGTGGAGCG | 180 |
| | GGCCCTTCCG | CGGCGAGCAT | GTCCATGGGC | CTGGAGATCA | CGGGCACCGC | GCTGGCCGTG | 240 |
| | CTGGGCTGGC | TGGGCAACAT | CGTGTGCTGC | GCGTTGCCCA | TGTGGCGCGT | GTGCGGCTTC | 300 |
| 60 | ATCGGCAGCA | ACATCATCAC | GTGCGAGAAC | ATCTGGGAGG | GCCTGTGGAT | GAACTGGGTG | 360 |
| | GTGCGAGCA | CCGGCCAGAT | GCACTGCAGG | GTGACGACT | CGCTGCTGGC | ACTGCCACAG | 420 |
| | GACCTTCAGG | CGGCCCGCGC | CTCATGCTG | GTGGCCATCC | TGCTGGCCCG | CTTGGGCTG | 480 |
| | CTAGTGGCGC | TGGTGGGCGC | CCAGTGACCC | AACTGCGTGC | AGGACGACAC | GGCCAGGGCC | 540 |
| | AAGATCAACA | TGTTGGCAGG | CGTGTGTTTC | CTTCTCGCG | CCCTGCTCAC | CCTCGTGCGG | 600 |
| 65 | GTGTCTTGGT | CGGCCAACAC | CATTATCCGG | GACTTCTACA | ACCCCGTGGT | GCCCGAGGCG | 660 |
| | CAGAGCGCGG | AGATGGGCGG | GGGCTGTGAC | GTGGGCTGGG | CGGCCCGGCG | GCTGCAGCTG | 720 |
| | CTGGGGGGCG | CGTGTCTGTG | CTGCTGTGT | CCCCCAGCG | AGAAAGAGTA | CACGGCCACC | 780 |
| | AAGGTCTGCT | ACTCCGCGCG | GCGCTCCACC | GGCCCGGAG | CCAGCTTGGG | CACAGGCTAC | 840 |
| | GACCGCAAGG | ACTACGTTTA | AGGACAGAC | GCAGGGAGAC | CCACCCACCA | CCACCCACAC | 900 |
| 70 | CAACACCAAC | ACACCAACCG | CGAGCTGGAG | CGCGCACAG | GCCATCCAGC | GTGACGCTT | 960 |
| | GCCTCGGAGG | CCAGCCACCC | CCAGAGGCC | AGGAAGCCCC | CGCGCTGGAC | TGGGGCAGCT | 1020 |
| | TCCCGAGCAG | CCAGCGCTTT | GCGGGCCGGG | CAGTCACTT | CGGGGCCAG | GCAACCACTT | 1080 |
| | GCACTGAGTG | TGAACCTCA | CCCTTCTGGA | GCAAGGGGTC | TGGGTGACCG | CCAAATCTTG | 1140 |
| | ACCAACCGGT | CGAGCCCAT | CGGGCCGCTG | CCCCCATGTC | GCGCTGGGCA | GGGACGGGCA | 1200 |
| 75 | GCCCTGGAAG | GGGCACTTGA | TATTTTTCAA | TAAAGGCTTC | TGTTTTCAGC | | 1250 |

Seq ID NO: C184 DNA Sequence
Nucleic Acid Accession #: NM_012449.1
Coding sequence: 66..1085

| | | | | | | | |
|----|------------|------------|------------|------------|------------|------------|-----|
| 80 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | CGGAGACTCA | CGGTCAAGCT | AAGGCGAAGA | GTGGGTGGCT | GAAGCCATAC | TATTTATAG | 60 |
| | AATTAATGGA | AAGCAGAAAA | GACATCACAA | ACCAAGAAGA | ACTTTGGAAA | ATGAAGCCTA | 120 |
| | GGAGAAATTT | AGAGAAGAC | GATTATTTGC | ATAAGGACAC | GGGAGAGACC | AGCATGCTAA | 180 |

| | | | | | | | |
|----|------------|------------|------------|------------|-------------|------------|------|
| 5 | AAAGACCTGT | GCTTTTGCAT | TTGCACCAA | CAGCCCATGC | TGATGAATTT | GACTGCCCTT | 240 |
| | CAGAACTTCA | GCACACACAG | GAACCTCTTC | CACAGTGGCA | CTTGCCCAATT | AAAATAGCTG | 300 |
| | CTATTATAGC | ATCTCTGACT | TTTCTTTACA | CTCTTCTGAG | GGAGTAATTT | CACCCCTTAG | 360 |
| | CAACTTCCCA | CAACAATAT | TTTATAAAA | TTCCAATCCT | GGTCATCAAC | AAAGTCTTGC | 420 |
| | CAATGGTTTC | CATCACTCTC | TTGGCATTGG | TTTACCTGCC | AGGTGTGATA | GCAGCAATTG | 480 |
| | TCCAACITCA | TAATGGAACC | AAGTATAAGA | AGTTTCCACA | TTGGTTGGAT | AAGTGGATGT | 540 |
| | TAACAAGAAA | GCAGTTTGGG | CTTCTCAGTT | TCTTTTITTC | TGTACTGCAT | GCAATTTATA | 600 |
| | GTCTGTCTTA | CCCAATGAGG | CGATCCTPAC | GATACAAGTT | CTTAAACTGG | GCATATCAAC | 660 |
| 10 | AGGTCCAACA | AAATAAAGAA | GATGCCCTGA | TTGAGCATGA | TGTTTGGAGA | ATGGAGATTT | 720 |
| | ATGTGTCTCT | GGGAATTTGT | GGATTTGGCA | TACTGGCTCT | GTGGCTGTGT | ACATCTATTG | 780 |
| | CATCTGTGAG | TGACTCTTTG | ACATGGAGAG | AATTTCACTA | TATTCTAGAG | AAGCTAGGAA | 840 |
| | TTGTTTCCCT | TCTACTGGGC | ACAATACACG | CATTGATTTT | TGCCTGGAAT | AAGTGGATAG | 900 |
| | ATATAAACA | ATTTGTATGG | TATACACCTC | CAACTTTTAT | GATAGCTGTT | TTCTTCCCAA | 960 |
| 15 | TTGTGTCTCT | GATATTTAAA | AGCATACTAT | TCTTGCCATG | CTTGAGGAAG | AAGATACTGA | 1020 |
| | AGATTAGACA | TGGTTGGGAA | GACGTACCCA | AAATTAACAA | AACTGAGATA | TGTTCCCACT | 1080 |
| | TGTAGAATTA | CTGTTTACAC | ACATTTTGTG | TCAATATTGA | TATATTTTAT | CACCAACATT | 1140 |
| | TCAAGTTTGT | ATTTGTTAAT | AAAATGATTA | TTCAAGGAAA | AAAAAAAAAA | AAAAA | 1195 |

Seq ID NO: C185 DNA Sequence
Nucleic Acid Accession #: NM_001775.1
Coding sequence: 70..972

| | | | | | | | |
|----|------------|-------------|------------|------------|-------------|-------------|------|
| 25 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | CTAAAGCTCT | CTTGCTGCTC | AGCCTCCTGC | CGGCTCTATC | TTGCCCCAGC | CAACCCCGCC | 60 |
| | TGGAGCCCTA | TGCCCAACTG | CGAGTTCAGC | CCGGTGTCCG | GGGACAAACC | CTGCTGCCGG | 120 |
| | CTCTCTAGGA | GAGCCCAACT | CTGTCTTGGC | GTCAGTATCC | TGGTCTGTAT | CCTGTGTGTG | 180 |
| | GTGCTCCGGG | TGGTCTCTCC | GAGGTGGGCG | CAGACGTGGA | GCGGTCCGGG | CACCAACAAG | 240 |
| 30 | CGCTTTCCCG | AGACCGTCTC | GGCGCGATGC | GTCAAGTACA | CTGAATTTCA | TCCTTGAGATG | 300 |
| | AGACATGTAG | ACTGCCAAAG | TGTATGGGAT | GCTTTCAAGG | GTGCATTAT | TTCAAAACAT | 360 |
| | CCTTGCAACA | TACTCAAGA | AGACTATCAG | CCACTAATGA | AGTTGGGAAC | TCAGACCGTA | 420 |
| | CCTTGCAACA | AGATTCTTCT | TTGGAGCAGA | ATAAAGATC | TGGCCCATCA | GTTCAACAG | 480 |
| | GTCCAGCGGG | ACATGTTTAC | CCTGGAGGAC | ACGCTGCTAG | GCTACTCTGC | TGATGACCTC | 540 |
| 35 | ACATGGTGTG | GTGAATTCAA | CACCTCCAAA | ATAAACTATC | AATCTTGCCC | AGACTGGAGA | 600 |
| | AAGGACTGCA | GCACAACCC | TGTTTCAGTA | TTCTGGAAAA | CGGTTCCTCG | CAGGTTTGCA | 660 |
| | GAGGCTGCTT | GGAATGTGGT | CCATGTGATG | CTCAATGGAT | CCGCGAGTAA | AATCTTTGAC | 720 |
| | AAAAACAGCA | CTTTTGGGAG | TGTGGAGTTC | CATAATTTGC | AACCCAGAGAA | GGTTTCAGACA | 780 |
| | CTAGAGGCTT | GGTGTATACA | TGTGTGAAGA | GAGATTTCOA | GAGACTTATG | CCAGGATCCC | 840 |
| 40 | ACCATAAAG | AGCTGGAAATC | GATTATAAGC | AAAAGGAATA | TTCAATTTTC | CTGCAAGRAAT | 900 |
| | ATCTACAGAC | CTGACAGATT | TCTTCAGTGT | GTGAAAAATC | CTGAGGATTC | ATCTTGACAA | 960 |
| | TCTGAGATCT | GAGCCAGTGT | CTGTGGTGTG | TTTAGCTCCT | TGACTCTCTG | TGGTTTATGT | 1020 |
| | CATCATACAT | GACTCAGCAT | ACCTGCTGGT | GCAGAGCTGA | AGATTTTGGG | GGGTCTCTCA | 1080 |
| | CAATAAGGTC | AATGCCAGAG | ACGGAGGCTT | TTTTCCCCAA | AGTCTTAAAA | TAACCTTATAT | 1140 |
| 45 | CATCAGCAT | CTTTTATTGT | GATCTATCAA | TAGTCAAGAA | AAATATTGTG | ATAAGATTAG | 1200 |
| | AATGAAATTT | GTATGTTAAG | TTACTTCTCT | TAG | | | 1233 |

Seq ID NO: C186 DNA Sequence
Nucleic Acid Accession #: XM_120513.2
Coding sequence: 1..2208

| | | | | | | | |
|----|-------------|------------|------------|------------|------------|-------------|------|
| 50 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | ATGGTGTTCAT | GCACGTTTCT | GGGCCCCCTA | CGGGAAACAA | ATGAAAACGT | GAAAAAGTTC | 60 |
| 55 | TACGCCCTTGC | GAGCTTTTAT | GTTCGCGATG | AGCTCAGAGG | CCGCGATGCT | CGGGGAAAGC | 120 |
| | AGGACCCCAA | AGCCCCGTAA | ACACCGCGCG | ACCCACCCGG | CCAAGATCTT | CAAGAGGTTT | 180 |
| | TTTTCAAGAG | GATCGGAGAG | CAATTCCCGA | TTGGTAGAAG | AACCTTGTCT | ATACACACG | 240 |
| | TACTCTGACG | ACCCCGCCCC | AACGACTAGC | CCCTCCTCTG | TGCAACCCCG | AGAGTTTGGG | 300 |
| | GTCAATGACG | GGGCGCCACG | AGCTCGTTTC | GGAAAGCCGA | CCCGGCCCGC | AGCCGACAGAA | 360 |
| 60 | GCCTCGAGTC | ACATCTTGCG | CAATGGCGAG | GCAGCCTGTC | AATCAGGAGC | TGCGGCGGCA | 420 |
| | GGCCCCCGCG | CGGGGGCTCG | GCGATGCCAG | CCTCAGCGAC | AGGCGCGCGC | GGCGCGCGCC | 480 |
| | ACGGCACAGA | CACACACCTT | CCCAACGCG | CHCACAGGG | CAGACCCCGC | GGGACGCGCG | 540 |
| | CGGAGGCACC | CTCGAGAGCC | GGCGCCCGCG | GGGAGGGGGA | CGTGTCTCGA | GGGACCGGCC | 600 |
| | CCBAGGCGCC | GGATGGAGGA | AGAGATGCAG | CCGCGCAGAG | AGGGGCGCAG | CGTCCCTCAA | 660 |
| 65 | ATCTACAGCG | AGCGCAGCCC | CTACAGCGTC | CTCAAGACGT | TCCCTCAGCA | GAGACCGGCG | 720 |
| | CTGGCCAAAG | GCTACGAGCG | ACCCACCCCT | GTGGAGCTGC | CGCACCGCCA | CTTGAGGACT | 780 |
| | CGCGCGCAGC | CGCGCGCCCG | GTCCCGCCCG | GCCTCTCTGT | CGTCTTGTGT | CGCGCTGTGT | 840 |
| | GTCAAGCTCG | GGGTCTCTCT | GCGTCCGCGA | CGCGGTGGAT | TTGCGGCGCG | GGGAACCATC | 900 |
| | CGCGCCCTCC | TTCCGTGCCC | GGGAGTCCGA | GGCACTCTGC | TCCACCTGCT | CACGTCTGTG | 960 |
| 70 | TTCCCGCCAT | CCCTCTGTCT | CCGTCTGTGT | CACGCTGCGG | CGCGCGCGGG | AGGGACCTCA | 1020 |
| | CATACACATA | TGTGGAGGTC | CCAGTCCACA | CTTCCAGGAT | CTGACACCAT | GGTCTCTGTC | 1080 |
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| | GTGGCGGTCC | TGCTGCCAAG | GTCTGAGGGT | AACTACTGCT | CTAGAGAGAG | TGGAATGATC | 1260 |
| 75 | TTGGATGCTT | TGGCCACAGA | GTGCACTGGA | GTCTTATGCC | TCTTAAATTT | TGGAGGAAAA | 1320 |
| | CTCCTGGACT | CCAACCATTC | TCACTCCATG | ATTCTTGGCG | TAAAGCAGGA | AGGCTCAAGT | 1380 |
| | TACACGAAAA | CGACAGGACA | CTGTCAATT | GGGAAAGGGG | TCCACAGTCA | GACCTCAGAC | 1440 |
| | AATGTAGACA | TAGAGATGCA | GTATATGCAA | AGGAAACAAC | AACTCTCTGC | CTTTTGTAGG | 1500 |
| | GTTTTCACAT | ACTCTCTACA | AAATTACCTG | CTCTCGGGAA | GCTTTCCAAC | TCCAAACCCC | 1560 |
| 80 | TGTGACCCA | GTGATATGG | CCATCTGGCC | GACGTGGATC | CTCTGTCAAC | CTCTCTGTGT | 1620 |
| | CATACATTAG | AAATATTTTC | ACTTGTATTC | ACAGCTTCCC | TGTGTAAATC | TAGGCATCTA | 1680 |
| | TCAGAGAGCG | CCCCGATCAA | GAGTGAATTT | CCAAATCCTT | TGCAGCAGCG | CTTGGCTGGG | 1740 |
| | GGTGTCTCAA | GACCATTTTC | AGGGGACAG | CAAGCATCG | CTTACAGGGT | GAACTCTGAA | 1800 |
| | CTTGAGGATG | GCATCCGCG | CCCGTCCCT | TTGAGTTGTG | AGGCGCTTGA | AATGGATTGT | 1860 |
| | ACCTCCTTGG | GAAGCAAGCA | GCTGTGAAC | AACATCCCTG | TCTACATAAC | GAGCAACAG | 1920 |

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Seq ID NO: C187 DNA Sequence
 Nucleic Acid Accession #: AB037745.1
 Coding sequence: 26..1744

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Seq ID NO: C188 DNA Sequence

Nucleic Acid Accession #: NM_014324.1

Coding sequence: 89..1237

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Seq ID NO: C189 DNA Sequence

Nucleic Acid Accession #: XM_091332.1

Coding sequence: 1..1401

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Seq ID NO: C190 DNA Sequence
 Nucleic Acid Accession #: XM_054869.2
 Coding sequence: 26..2902

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AAAGCTTTTG CTCTCAGAT GTACAACCTG TTGCTGCTCT ACACAGACA TGGGGACACC 900
CTGCAGCCCC TGAACCTCTG GCCCAATCAC CAGGCTCTCA CCTTTTCAA GCTGGCTGGA 960
GTGGAGGATA ACAGTGTGAT GTTTCAGCAC CTGATGACAG AGCGGAGCA CACCCAGTGG 1020
ACGTATGGAC CACTGACTTC GACTCTCTAT GACTCTCAG AGATCGACTC CTCAGGGGAT 1080
GAGCAGTCCC TGTCTGAACT TATCATCACC ACCAAGAAGC GGGAGGCTCG CCAGATCTCT 1140
GACCAAGCGC CAGGTGAGGA GCTGGTGAAG CTCAAGTGGG AGCGGTACCG GCGGCGCTAC 1200
TTCTGCTGCT TGTGTCCTAT ATATCTGCTG TACATCATCT GCTTACCAT GTGCTGCATC 1260
TACCCGCCCC TCAAGCCGAG GACCAATAAC CGCAGAGGCC CCGGAGACA CACCTCTTA 1320
CAGCAGAGGC TACTTCAGGA AGCCTACATG ACCCCTAAGG ACGATATCCG GCTGGTCTGG 1380
GAGCTGTGTA CTGTCTATGG GGCTATCATC ATCTGCTGG TAGAGGTTCC AGACATCTTC 1440
AGAATGGGGG TCACTCGCTT CTTTGGACAG ACCATCTTGG GGGGCCCAT TCAATGCTCT 1500
  
```

5 ATCATCAOCT ATGCCTTCAT GGTGCTGGTG ACCATGGTGA TGGGCTCAT CAGTGCCAGC 1560
 GGGGAGGTGG TACCATGCTC CTTTGCACTC GTGCTGGGCT GGTGCAACGT CATGTACTTC 1620
 GCCGAGAGAT TCCAGATGCT AGGCCCTTC ACCATCATGA TTCAGAAAGT GATTTTGGC 1680
 GACCTGATGC GATTCTGCTG GCTGATGGCT GTGGTCATCC TGGGCTTTGC TTCAGCCTTC 1740
 TATATCATCT TCCAGACAGA GGACCCCGAG GAGCTAGGCC ACTTCTACGA CTACCCCATG 1800
 GCCCTGTTCG GCACCTTCGA GCTGTTCTTT ACCATCATCG ATGGCCCGAG CAACTACAAC 1860
 GTGGACCTGC CCTTCATGTA CAGCATCACG TATGCTGCTT TTGCCATCAT CGCCACACTG 1920
 CTATGCTCA ACCTCCTCAT TGCCATGATG GGCACACTTC ACTGSCBAGT GGGCCATGAG 1980
 CGGATGAGC TGTGGAGGGC CCAGATTGTG GCCACCAAGG TGATGCTGGA GCGGAAGCTG 2040
 CCTGCTGCTC TGTGGCTTCG CTCGGGATC TGGGACCGG AGTATGGCCT GGGAGACCGC 2100
 TGGTTCCTGC GGGTGGAGGA CAGGCAAGAT CTCACCGGCG AGCGGATCCA ACCTACGCA 2160
 CAGGCTTCC ACACCCGCGG CTCGAGGAT TTGGACAAAG ACTCAGTGGG AAAACTAGAG 2220
 CTGGGCTGTC CCTCAGCCC CCACCTGTCC CTTCCTATGC CCTCAGTGC TCGAAGTACC 2280
 TCCGACAGA GTGCCAATTG GGAAGGCTT CGGCAAGGGA CCTGAGGAG AGACCTGCGT 2340
 GGGATATCA ACAGGGCTCT GGAGGACGGG GAGAGCTGGG AATATCAGAT CTGACTGCGT 2400
 GTTCTCACT CGCTTCTGG AACTTGTCT CATTTTCTG GGTGCATCA ACAGAAACAA 2460
 AACCAACAC CAGAGCTCT CATCTCCAG GCGCCAGGG AGAAAGAGGA GTAGCATGAA 2520
 CGCCAGGAA TGTACCTTGA GAATCACTGC TCCAGGCTG CATTACTCCT TCAGCTCTGG 2580
 GGCAGAGGA GCGCAGGCA AGCAGGGGG TGGCAGGGG TGAGGAATC TCCTGTGGCC 2640
 20 TGCTCATCAC CCTTCCGACA GGAGCACTGC ATGTGAGAGC ACTTTAAAAA CAGGCCAGCC 2700
 TGTCTGGGG CTCGCTCTCC ACCCCAGGGT CATAGTGGG GAGAGAGCCC TTCCAGGGC 2760
 ACCCAGGCA GTGCAAGGGA GTGCAAGAGT TGTGAAAGC GTGTGAGTGA GGGAGACAG 2820
 AACGCTCTG GGGTGGGAA GTGGGCTAG GTCTTGCAA CTCATCTTC AATAAGTGG 2880
 25 TTTTCGATC CTGAAAAA AAAAAAAA AAAAAA 2918

Seq ID NO: C194 DNA Sequence
 Nucleic Acid Accession #: NM_021910.1
 Coding sequence: 260..601

30 1 11 21 31 41 51
 GTTCTCCACA ACTGCCAGCA ATCCTTCCAC CAGGCAAAAC ACATCATCTA AGGAAAAGAA 60
 GTGAGGTTTG CTTAGGGCGT GGCAGCTTCG GATAAACGCA GGACTCCGCC TGGCAGCCCG 120
 ATTTCTCCCG GAACCTCTGC TCAGCCTGGT GAACCAACA GGCAGAGTT TCACCCAGTC 180
 35 CCGACTCCAC GGTGCAGCTG CGCCTTATCT CTCAGCCGAG CGAGATGCCA GCCTTCCTGT 240
 CCGGGGCGAG CGCTCTGACA TGCAGAGGT GACCTGGGC CTGCTTGTGT TCCTGGCAGG 300
 CTTTCTGTTC CTGGAAGCCA ATGACCTAGA AGATAAAAC AGTCCTTTCT ACTATGACTG 360
 GCACAGCTTC CAGGTGGGG GGTCTATCTG CGCTGGGTT CTGTGCCCA TGGGCATCAT 420
 CATGCTATG AGTGAAGTGA GGAGCTCGGG GGAGCAGGCG GCGCGGGCT GGGCTCCCC 480
 40 TCCCTGACC ACTCAGCTCT CCCAACAGG TGCAAAATGC AATGCAAGT TTGGCCAGAA 540
 GTCCGCTCAC CATCCAGGGG AGACTCCACC TCTCATCACC CCGGGCTCAG CCCAAGCTG 600
 ATGAGACAG ACCAGCTGAA ATGGGTGGA GGACCGTTCT CTGTCCGAG CTCTGTCTC 660
 TGCAAGAAA CTGAATCTCC AGGATGGAAT TCTTCTCTCT CTGCTGGAC TCCTTTGCAT 720
 GGCAGGCTC CATCTCACT CTGCAAGAG GGTCTCTTTG TTCAATTTT TTAATCTAA 780
 45 AATGATTGTG CCTCTGCCCA AGCAGCTCG AGACTTCTTA TGTGTGCAAT GGGGTGGGG 840
 TTGGGGCACC ATGAGAGGTG TGGGTGGGCC TGGAGGCTGA CACAGAGGCT GGCAGTGAGC 900
 CTGCTGTGTG GGAAGAGGCC ACAGGCTGTG TCCCTGTGG CTGGGACAT GGCACAGGCC 960
 CGCCCTCTGC CTCCTCAGCC ATGGGACCTC ATATGCAATT TGGGATTTAC TAGTAGCCAA 1020
 AAGGAATGAA AGCAGCTCT AACAGATGG AACACTGGAA CATCCAGTG GACCCGTGAC 1080
 50 CATTCAGGA AAACCTGGAC ATAGGATGCT CCGCTATGA TGGAGTGT CAGCAGTTT 1140
 ATAATAGTAA GCGCTGTGA CCTCTCACT TACCCGAGA CCTCACTTA TTACAGATC 1200
 TTTCCAAATA TCAATATATC CCGCAAGCC CGTTAAATA TTCCCTATG TACCTTAAT 1260
 AACATCAAT GACCAATAG TGTGAGAACT TCCACAAAG CTCAAAGTCC CTGAGACTC 1320
 CCAATACCT AATAGGATG GCGAAATGT CTCATGAAT ACCCCACAAC AGCCCTAAA 1380
 55 CTCAAACAC CCAAAATAT CTCTCCAT GTCTGAGAC ATGAACCAA AAAGAGACC 1440
 ACAATAAAT CGTGACTGTG CCGCTC 1466

Seq ID NO: C195 DNA Sequence
 Nucleic Acid Accession #: NM_005971.2
 Coding sequence: 176..439

60 1 11 21 31 41 51
 GTTCTCCACA ACTGCCAGCA ATCCTTCCAC CAGGCAAAAC ACATCATCTA AGGAAAAGAA 60
 GTGAGGTTTG CTTAGGGCGT GGCAGCTTCG GATAAACGCA GGACTCCGCC TGGCAGCCCG 120
 ATTTCTCCCG GAACCTCTGC TCAGCCTGGT GAACCAACA GGCAGAGTT TCACCCAGTC 180
 65 GAAGGTGACC CTGGGCTGCG TTGTGTTCTT GGCAGGCTTT CTGTCTGTGT ACGCCATGA 240
 CCTAGAGAT AAAACAGTC CTTTCTACTA TGAATGACAC AGCCTCCAGG TTGGCGGGCT 300
 CATCTGCGCT GGGTTCTGCT GCGCCATGGG CATCATCATC GTCATGAGTG CAAAATGCAA 360
 70 ATGCAAGTTT GGCAGAGGT CCGGTCAACA TCCAGGGGAG ACTCCAACCT TCATCACCCC 420
 AGGCTCAGCC CAAAGCTGAT GAGGACAGAC CAGCTGAAT TGGTGGAGG ACCGTCTCT 480
 GTCCCAAGGT CCGTCTCTCG CACAGAACT TGAACCTCAG GATGGAATTC TTCTCTCTCT 540
 GCTGGGACCT CTTTGATGCG CAGGGCTCTA TCTCACTCT CGCAGAGGG TCTCTTGT 600
 75 CAATTTTCTT TAATCTAAA TGTGTTGCC TCTGCCCCAG CAGCCTGGAG ACTTCTATG 660
 TGTGCTTGG GGTGGGGCTT GGGGACCAT GAGGAGGTTG GGTGCCCCG GAGGCTGACA 720
 CAGAGGCTGG CACTGAGCCT GCTTGTGGG AAAAGCCAC AGGCTGTTC CCTTGTGG 780
 TGGGACATGG CACAGGCCCG CCTCTGCTT CCTCAGCCAT GGGACCTCAT ATGCAATTTG 840
 GGATTTACTA GTAGCCAAA GGAATGAAAG AGAGCTCTAA CCAGATGGA CACTGGAACA 900
 80 TTCCAGTGA CCTGAGACCA TCCAGGAAA ACTGGGACAT AGGATGCTCC CGCTATGATG 960
 GAGTGTTC GACAGTTTAT AATAGTAAGC CCTGTGACC CTCTCACTTA CCGGAGACC 1020
 TCACTTTATT ACAGATCTT TCCAATACC CAATATCCC TGCAAGCCCG TTAATAAT 1080
 CCTATGCTA CCTTAAATA CATACATGA CCACATAGT TGAAGACTTC CAACAAGCTT 1140
 CAAGTCCCT TGAGACTCCC CAATACCTAA TAAGGCATGC GAAATGTTCT CATGAACAT 1200
 CCCACAACAC GCTTAAACT CAAAACACC AAAAATATCT CTCCAATGT CAGAGACAT 1260

GAACCCAAAA AGAGACCCAC AATAAACTCG TGACTTGTCC CCTC

1304

Seq ID NO: C196 DNA Sequence

Nucleic Acid Accession #: NM_004961.2

Coding sequence: 55..1575

5

| | | | | | | | |
|----|-------------|-------------|-------------|------------|-------------|------------|------|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | | |
| 10 | GCCAGAGCGT | GAGCGCGGAC | CTCCGCGCAG | GTGGTGGCGC | CGGTCTCCGC | GGAAATGTTG | 60 |
| | TCCAAAGTTC | TTCCAGTCCT | CCTAGGCATC | TTATTGATCC | TCCAGTCGAG | GGTCGAGGGA | 120 |
| | CCTCAGACTG | AATCAAAGAA | TGAAGCCTCT | TCCCCTGATG | TTGCTATATG | CCCCCAGCCC | 180 |
| | CAGCCTCTGG | AAAATCAGCT | CCTCTCTGAG | GAAACAAAGT | CAACTGAGAC | TGAGACTGGG | 240 |
| | AGCAGAGTTG | GCAAACTGCC | AGAAGCCTCT | CGCATCTGGA | ACACTATCCT | GAGTAATTAT | 300 |
| 15 | GACCACAAAC | TGCCCCCTGG | CATTGGAGAG | AAGCCCACTG | TGGTCACTGT | TGAGATGCCC | 360 |
| | GTCAACAGCC | TTGTCTCTCT | CTCTATCTTA | GACATGGAAT | ACACCATTGA | CATCATCTTC | 420 |
| | TCCAGAGCCT | GGTACGACGA | ACGCTCTCTG | TACAACGACA | CCTTTGAGTC | TCTTGTCTTG | 480 |
| | AATGGCAATG | TGGTGAGCCA | GCTATGGATC | COGACACCTT | TTTTTAGGAA | TTCTAAGAGG | 540 |
| | ACCCACGAGC | ATGAGATCAC | CATGCCCAAC | CAGATGGTCC | GCATCTACAA | GGATGGCAAG | 600 |
| | GTGTTGTACA | CAATTAGGAT | GACCATTGAT | GCCGGATGCT | CACCTCCAT | GCTCAGATT | 660 |
| 20 | CCAAATGGATT | CTCACTCTTG | CCCTCTATCT | TTCTCTAGCT | TTTCTATACC | TGAGATGAG | 720 |
| | ATGATCTACA | AGTGGGAAAA | TTTCAAGCTT | GAATCAATG | AGAAGAATC | CTGGAAGCTC | 780 |
| | TTCCAGTTTG | ATTTTACAGG | AGTGAGCAAC | AAAACCTGAA | TAATCACAAC | CCCAGTTGGT | 840 |
| | GACTTCATGG | TCATGACGAT | TTTCTTCAAT | GTGAGCAGGC | GCTTTGGCTA | TGTTCCTTTT | 900 |
| 25 | CAAAATAGTG | TGCTTCTTTC | CGTGACCAAG | ATGCTCTCTT | GGGTTTCTTT | TTGGATCAAG | 960 |
| | ACAGAGTCTG | CTCCAGCCCG | GACCTCTCTA | GGGATCACTT | CTGTTCTGAC | CATGACCAAG | 1020 |
| | TTGGGCACTT | TTTCTCTGAA | GAATTTCCCG | CGTCTCTCTT | ATATCACAGC | CTTGGATTTC | 1080 |
| | TATATGCCCA | CTTCTCTGCT | CTTCTCTGCT | TGCGCTCTGT | TGGAGTTTGC | TGTGCTCAAC | 1140 |
| | TTCCCTGATCT | ACAACCCAGC | AAAAGCCCAT | GCTTCTCTTA | AACTCCGCGA | TCTCTGTATC | 1200 |
| | AATAGCCGTG | CCCATGCTTC | TACCCGTGCA | CBTTCGCGAG | CCTGTGCCCG | CCCAATCAGC | 1260 |
| 30 | GAAGCTTTTG | TGTGCCAGAT | TGTCAACACT | GAGGGAGATG | ATGGAGAGGA | GCGCCGCTCT | 1320 |
| | TGCTCAGCCC | AGCAGCCCCC | TAGCCCAAGT | AGCCCTGAGG | GTCCCCGACG | CCTCTGCTCC | 1380 |
| | AAGCTGGCCT | GCTGTGAGTG | GTGCAAGCGT | TTTAAGAGAT | ACTTCTGCAT | GGTCCCGGAT | 1440 |
| | TGTGAGGGCA | GTACTGCGCA | GCAGGGCCCG | CTCTGCATCC | ATGCTTACCG | CCTGGATAAC | 1500 |
| 35 | TACTCGAGAG | TGTCTTCCCG | AGTGACTTTC | TTCTTCTTCA | ATGTGCTCTA | CTGGCTTGT | 1560 |
| | TGCTTAACCT | TGTAGGTACC | AGCTGGTACC | CTGTGGGGCA | ACCTCTCCAG | TTCCCTAGGA | 1620 |
| | GGTCCCAAGC | CCTTGCCAAAG | GGAGTTGGGG | GAAAGCAGCA | GCAGCAGCAG | GAGCGACTAG | 1680 |
| | AGTTTTTCTT | GCCCCATTCC | CCAAACAGAA | GCTTGACAGG | GGTTTGTCTT | TGCTGCCCTT | 1740 |
| | CTCCCCCTAC | TGCCCCATTTC | ACTGAGTCTT | CTCAGCAGAC | CATTTCAAAT | TATTAATAAA | 1800 |
| 40 | TGGGCCACCT | CCCTCTTCTT | CAAGGAGCAT | CCGTGATGCT | CAGTGTTCAA | AACCAACAGC | 1860 |
| | ACTTAGTGAT | CAGCTCCCTA | AAACCATGCC | TAAGTACAGG | CGGATTAGCT | ATCTTCCAAC | 1920 |
| | AATGCTGACC | ACCAGACAAT | TACTGCAATT | TTCCAGAAGC | CCACTATTGC | CTTTGTAGTG | 1980 |
| | CTTTGGGCC | AGTTCTGGCC | TCAGCCCTCAA | AGTGCACGGA | CTAGTGTGCT | GGCTATACCT | 2040 |
| | GGCACCCTAT | TAAAGATCTG | GGCAGCAGTA | TAACAGGAGG | AAGAGATCCC | TCTCTTTTGG | 2100 |
| 45 | TCAGATTATT | TGTCTTCCCG | TTCTCTCTCC | CTGCTACCCC | TTTCTCTGCA | GATAGATAGA | 2160 |
| | CACCTGGCATT | ATCCCTTTAG | GAAGAGGGGG | GGCGACGAGG | AGAGCCTATT | TGGGACAGCA | 2220 |
| | TTCTCTCTTC | TCTGCTGCTG | TGACATCTCC | CTCTCTTTCG | TGGCTCCATC | TTTGTCTGTC | 2280 |
| | ACTACCAATT | CAATGCCCTT | CATCCAAATG | GTATCTATT | TTGTGTGTA | TTATAGTAAC | 2340 |
| | TACTCCCTGC | TTTATATGCC | ACCTCTCTCC | TTCTCTTTGA | CCCCGTGAC | TCCTTCTGTA | 2400 |
| | ACTTTCCCG | TGACTCTCCG | TAGCCCTGAC | CCAGGCACTA | GGCCCTGGTG | ACTTCCCTGG | 2460 |
| 50 | GCCAGAAAC | TAAGAAACT | CGGCTTTGCA | ACAGGCATTA | CTGCGCATTG | ATTGGTGCCC | 2520 |
| | ACCCAGGGCA | CACCTGTGGA | GTCTATACAC | TTGCTTGACC | CCTGGACCCA | TAAACCAATC | 2580 |
| | CACGTGTATA | CCCGGGGCAC | TCTAACCATC | ACATCAATC | AATCAAAATC | CCTTAAATTT | 2640 |
| | GTATGGCACT | GGAACTTTGG | CAAGACACTT | TTGACAGATT | GTGCTGATTT | GGAGCTTCAT | 2700 |
| | GATAGCCTTG | TGACATCTTT | AGGGCAGGAT | TCCTATCCCC | ATTTTGCAGA | TGAAAACCTC | 2760 |
| 55 | GAGTACAGAA | TTTCTGTGGG | ACTGTGGATC | TCACTGGGAG | CTATCCAGAA | GCCCACTGTC | 2820 |
| | ACCTCTAGAA | CCACATGATA | GGGCTAGACA | GCTCAGTTCA | CCATGATTCT | CTCTGTCAC | 2880 |
| | CTCTGCTGGC | ACACCACTGG | CAAGGCCGAG | AATGGCGACC | TCTCTTTAGC | TCAATTTCTG | 2940 |
| | GGCCTGAGGT | GCTCAGACTG | CCCCCAAGAT | CAATCTCTCT | CTGGCTGTAG | TAAACCAAGT | 3000 |
| | GAATGAATTT | GGACATGGCC | CAATGCTTCT | ATATGCTAAG | TGAAATCTGT | GTCTGTAATT | 3060 |
| 60 | TGTTGGGGGG | TGGATAGGGT | GGGGTCTCCA | TCTACTTTTT | GTCAACCATCA | TCTGAATATG | 3120 |
| | GGAAATATGT | AAATAAATAT | ATCAGCAAAG | CAAAAGAAA | AAAAAAA | | 3168 |

Seq ID NO: C197 DNA Sequence

Nucleic Acid Accession #: NM_021984.1

Coding sequence: 572..1753

65

| | | | | | | | |
|----|------------|------------|------------|------------|------------|------------|-----|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | | |
| 70 | GCCAGAGCGT | GAGCGCGGAC | CTCCGCGCAG | GTGGTGGCGC | CGGTCTCCGC | GGAAATGTTG | 60 |
| | TCCAAAGTTC | TTCCAGTCCT | CCTAGGCATC | TTATTGATCC | TCCAGTCGAG | AACATGTATA | 120 |
| | CAGAGAAATG | CTCAAAATCA | AGTGTACAG | CTGATGAGTT | GTCAAAAAT | GACCAACGCG | 180 |
| | GTGTAAGAA | AGCCAAATCA | AGGACCCGAA | TGTGAGCAGG | ACCTCAGAG | CCCCCTTTGT | 240 |
| | CACCTGCTCC | CAGCAAGGCG | AGCACTATCC | GGACTTCTAA | CACCTCGGG | TGGAGGGACC | 300 |
| | TCAGACTGAA | TAAAGAAATG | AAGCCTCTTC | CGGTGATGTT | GTCTATGGCC | CCGAGCCCCA | 360 |
| 75 | GCCTCTGGAA | AATCAGCTCC | TCTCTGAGGA | AACAAGTCA | ACTGAGACTG | AGACTGGGAG | 420 |
| | CAGAGTGGC | AAAGTCCGAG | AAGCCTCTCG | CATCTGAAC | ACTATCTGTA | GTAATTATGA | 480 |
| | CCCAAACTG | CGCCCTGGCA | TTGGAGAGAA | GGCCACTGTG | GTCACTGTTG | AGATCTCCGT | 540 |
| | CAACAGCCTT | GGTCTCTCT | CTATCTTAGA | CATGGAATAC | ACCATTGACA | TCATCTCTCT | 600 |
| | CCAGACCTGG | TACGAAGAA | GCTCTGTTA | CAACGACACC | TTTGAGTCTC | TTGTTCTGAA | 660 |
| 80 | TGGCAATGAG | GTGAGCAGC | TATGGATCCC | GGACACCTTT | TTTTAGGAAT | CTAAGAGGAC | 720 |
| | CCACGAGATG | GAGATCACCA | TGCCCAACCA | GATGGTCCCG | ATCTACAAGG | ATGGCAAGGT | 780 |
| | GTGTACACA | ATTAGGATGA | CCATTGATGC | CGGATGCTCA | CTCCACATGC | TCAGATTTC | 840 |
| | AATGGATTCT | CACCTTGTCC | CTCTATCTTT | CTCTAGCTTT | TCTATCTCTG | AGAATGAGAT | 900 |
| | GATCTPACAG | TGGGAAATAT | TCAAGCTTGA | AATCAATGAG | AAGAACTCCT | GGAGCTCTT | 960 |

| | | | | | | | |
|----|------------|-------------|-------------|------------|-------------|-------------|------|
| 5 | CCAGTTGGAT | TTTACAGGAG | TGAGCAACAA | AACTGAAATA | ATCACAAACC | CAGTTGGTGA | 1020 |
| | CTTCATGGTC | ATGACGATTT | TCTTCAATGT | GAGCAGGCGG | TTTGGCTATG | TTGCCTTTCA | 1080 |
| | AAACTATGTC | CCTTCTCTCG | TGACCAAGAT | GCTCTCCCTG | GTTTCCCTTT | GGATCAAGAC | 1140 |
| | AGAGTCTGCT | CCAGCCCGGA | CCTCTCTAGG | GATCACCTCT | GTTCTGACCA | TGACCAAGAT | 1200 |
| | GGGCACTTT | TCTGTAAGA | ATTTCCTCGG | TGCTCTCTAT | ATCACAGCCT | TGGATTTCTA | 1260 |
| | TATCGCCATC | TGCTTCGCTC | TCTGCTCTG | CGCTCTGTTG | GAGTTTGCTG | TGCTCAACTT | 1320 |
| | CCTGATCTAC | AACGAGACAA | AAGCCCATGC | TTCTCTTAAA | CTCCGCCATC | CTCGTATCAA | 1380 |
| | TAGCCGTGCC | CATGCCCTTA | CCCGTGACCG | TTCCCGAGCC | TGTGCCCGCC | AACATCAGGA | 1440 |
| 10 | AGCTTTTGTG | TGCGAGATTG | TCACCACTGA | GGGAAGTGAT | GGAGAGGAGC | GCCCGTCTTG | 1500 |
| | CTCAGCCAG | CAGCCCCCTA | GCCCAGGTAG | COCTGAGGGT | CCCCGACGCC | TCTGCTCCAA | 1560 |
| | GCTGGCCTGC | TGTGAGTGGT | GCAAGCGTTT | TAAGAAGTAC | TTCTGCACTG | TCCCGGATTE | 1620 |
| | TGAGGCGAGT | ACCTGGCAGC | AGGCCCGCCT | CTGCATCCAT | GTCTACCGCC | TGGATAACTA | 1680 |
| | CTCGAGAGTT | GTTTCCCGAG | TGACTTTCTT | CTTCTTCAAT | GTGCTCTACT | GGCTTGTGTT | 1740 |
| | CCTTAACCTG | TAGGTACAG | CTGTACCTT | TGCGGCGAAC | CTCTCCAGTT | CCCGAGGAGG | 1800 |
| 15 | TCCAGCCCTC | TGCGCAAGGG | AGTTGGGGGA | AAGCAGCAGC | AGCAGCAGGA | GCGACTAGAG | 1860 |
| | TTTTTCTGTC | CCCATTCCCC | AAACAGAGAG | TTGCAGAGGG | TTTGTCTTTG | CTGCCCTCTT | 1920 |
| | CCCCATCTCG | GCCCATTCAC | TGAGTTTCTT | CAGCAGACCA | TTTCAAAATTA | TTAATAAATG | 1980 |
| | GGCCACCTCC | CTCTCTCTCA | AGGAGCATCC | GTGATGCTCA | GTGTTCAAAA | CCACAGCCAC | 2040 |
| | TTAGTGATTA | CGTCCCTAAA | ACCATGCCCTA | AGTACAGGCG | GATTAGCTAT | CTTCCAACTA | 2100 |
| 20 | TGCTGACCAC | CAGACAATTA | CTGCATTTTT | CCAGAAGCCC | ACTATTGCTT | TTGCACTGCT | 2160 |
| | TTGCGGCCAG | TTCTGGCCTC | AGGCTCAAGG | TGCACCGACT | AGTTGCTTGC | CTATACCTGG | 2220 |
| | CACCTCATTA | AGATGCTGGG | CAGCAGTATA | ACAGGAGGAA | GAGATCCCTC | TCCTTTGGTC | 2280 |
| | AGATTATAT | GTTCTCAGTT | CTCTCTCCCT | GCTACCCCTT | TCTCTGAGA | TAGATAGACA | 2340 |
| | TTGGCATTAT | CGCTTTAGGA | AGAGGGGGGG | GCAGCAAGAG | AGCCTATTGT | GGACAGCAAT | 2400 |
| 25 | CCTCTCTCTC | TGCTGCTGTG | ACATCTCCCT | CTCCTTGCTG | GCTCCATCTT | TGCTCTGCAC | 2460 |
| | TACCAATTTA | ATGCGCTTCA | TCCAAATGGT | ATCTATTTTT | GTGTGTGATT | ATAGTAACCTA | 2520 |
| | CTCCCTGCTT | TATATGCTAC | CCTCTTCCCT | CTCTTTGACC | CCTGTGACTC | TTTCTGTAAAC | 2580 |
| | TTTCCAGTGG | ACTTCCCTTA | GCCCTGACCC | AGGCACTAGG | CCTTGGTGAC | TTCTTGGGGC | 2640 |
| | CAAGAACTA | AGGAAACTCG | GCTTTGCAAC | AGGCATTAAT | CGCCATTTAT | TGGTGCCAC | 2700 |
| 30 | CCAGGGCACA | CTGTCCGAGT | TCTATCACTT | GCTTGACCCC | TGGAGCCATA | AACCAATCCA | 2760 |
| | CTGTTATACC | CGGGGCACCT | TAACCATCAC | AATCAATCAA | TCAAAATCCC | TAAATTTGTT | 2820 |
| | ATGGCACTGG | AACCTTTGGCA | AAGCACTTTT | GACAAAGTTG | GTCTGATTGG | AGCTTTCATGA | 2880 |
| | TAGCCTTTGG | ACATCTTTAG | GCGAGGATTC | TTATCCCATC | TTTGCAGATG | AAAACCTTGA | 2940 |
| | GTCAAGATT | TCTGTGGGAC | TGTGGATCTC | ACTGGAAGCT | ATCCAGAGCC | CCACTGTAC | 3000 |
| 35 | CTTCTAGACC | ACATGATAGG | GCTAGACAGC | TCAGTTCAAC | ATGATTTCTT | TCTGTCACTT | 3060 |
| | CTGCTGGCAC | ACCAGTGGCA | AGGCCCGGAA | TGGCGACCTC | TCTTTAGCTC | AATTTCTGGG | 3120 |
| | CCTGAGGTGC | TCAGATCTGC | CCCAAGATCA | AATCTCTCCT | GGCTGTAGTA | ACCCAGTGGG | 3180 |
| | ATGAATTGG | ACATGCCCCA | ATGCTTCTAT | ATGCTAAGTG | AAATCTGTGT | CTGTAATTGG | 3240 |
| 40 | TTGGGGGGTG | GATAGGGTGG | GGTCTCCATC | TACTTTTGTG | CACCATCTAC | TGAAATGGGG | 3300 |
| | AAATATGTAA | ATAAATATAT | CAGCAAGC | | | | 3320 |

Seq ID NO: C198 DNA Sequence
Nucleic Acid Accession #: NM_021987.1
Coding sequence: 572..1657

| | | | | | | | |
|----|-------------|-------------|-------------|-------------|-------------|-------------|------|
| 45 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| | GGCAGAGCGT | GAGCCGCGAG | CTCCGCGCAG | GTGGTCGCGC | CGGTCTCCGC | GGAAATGTTG | 60 |
| 50 | TCCAAAGTTC | TTCCAGTCCCT | CCTAGGCATC | TTATTGATCC | TCCAGTCCAG | AACATGTATA | 120 |
| | CAGAGAGTGG | CTCAATCAT | AAGTGTACAG | CTGATGAGTT | GTCAAAAT | GACCAAGCG | 180 |
| | GTGTAAAGAA | AGCCAATCA | AGGACCGGAA | TGTGAGCAGG | ACCTCAGAG | CCCCCTTTGT | 240 |
| | CAGTGCCTCC | CAGCAAGGCG | AGCACTATCC | GGACCTCTAA | ACCATCGGG | TGAGGGAGCC | 300 |
| | TCAGACTGAA | TCAAGAATG | AAGCCTCTTC | CGGTGATGTT | GTCTAGGCC | CCGAGCCCCA | 360 |
| | GCCTCTGGAA | AATCAGCTCC | TCTCTGAGGA | AACAAAGTCA | ACTGAGACTG | AGACTGGGGG | 420 |
| 55 | CAGAGTTGGC | AACTGCGCAG | AAGCCTCTCG | CATCCTGAAC | ACTATCTCTG | GTAATTATGA | 480 |
| | CCCAAACTG | CGCCCTGGCA | TTGGAGAGAA | GCCCACTGTG | GTCACTGTTG | AGATCTCCGT | 540 |
| | CAACAGCCTT | GGTCCCTCTT | CTATCCTAGA | CATGGAATAC | ACCAATGACA | TCATCTTCTC | 600 |
| | CCAGACTGCG | AATCTTAAGA | GGACCCACGA | GCATGAGATC | AACATGCCCA | ACCAGATGGT | 660 |
| | CGCATCTAC | AAGGATGGCA | AGGTGTTGTA | CACAAATAGG | ATGACCAATG | ATGCCGGATG | 720 |
| 60 | CTCACTCCAC | ATGCTCAGAT | TTCCAATGGA | TTCTCACTCT | TGCCCCCTAT | CTTCTCTAG | 780 |
| | CTTTTCTCTAT | CCTGAGAAATG | AGATGATCTA | CAAGTGGGAA | AATTTCAAGC | TGGAATCTCA | 840 |
| | TGAGAGAGAC | TCTTGGGAGC | TCTTCCAGTT | TGATTTTACA | GGAGTGAGCA | ACAAAACCTGA | 900 |
| | AATAATCACA | ACCCCAAGTTG | GTGACTTCTAT | GGTCATGAGC | ATTTTCTTCA | ATGTGAGCAG | 960 |
| | GCGGTTTGGC | TATGTTGCCCT | TTCAAAACTA | TGTCCCTTCT | TCCGTGACCA | CGATGCTCTC | 1020 |
| 65 | CTGGGTTTCC | TTTGGGATCA | AGACAGAGTC | TGCTCCAGCC | CGGACCTCTC | TAGGGATCAC | 1080 |
| | CTCTGTTCTG | ACCATGACCA | CGTTGGGCGC | CTTTTCTCGT | AAGAATTTCC | CGCGTGTCTC | 1140 |
| | CTATATCA | GCTTGGATT | TCTATATCGC | CATCTGCTTC | GTCTTCTGCT | TGTGGCTCTT | 1200 |
| | GTTTGGAGTT | GCTGTGCTCA | ACTTCTGAT | CTACAAACAG | ACAAAAGCCC | ATGCTTCTCC | 1260 |
| | TAAACTCCGC | CATCTCTGTA | TCAATAGCGG | TGCCCCATGCC | CGTACCCGAG | CAGCTTCCCG | 1320 |
| 70 | AGCCGTGTC | CGCCACATCT | AGGAAGCTTT | TGTGTGCCAG | ATTGTCAACCA | CTGAGGGAAG | 1380 |
| | TGATGGAGAG | GAGCGCCCTT | CTTCTCTAGC | CCAGCAGCCC | CCTAGCCGAG | GTAGCCCTGA | 1440 |
| | GGGTCCCGGC | AGCCTTGTCT | CCAGCTGGCC | CTGCTGTGAG | TGGTGCAGGC | GTTTAAAGAA | 1500 |
| | GTACTTCTGC | ATGCTCCCGC | ATTGTGAGGG | CAGTACCTGG | CAGCAGGCCC | GCCTCTGCAT | 1560 |
| | CCATGTCTAC | CGCTTGGATA | ACTACTCGAG | AGTTGTTTTT | CCAGTGACTT | TCTTCTTCTT | 1620 |
| 75 | CAATGTGCTC | TACTGGCTTG | TTTGCCTTAA | CTTGTAGGTA | CCAGCTGGTA | CCCTGTGGGG | 1680 |
| | CAACCTCTCC | AGTTCCCGAG | GAGGTCCAG | CCCCCTGCCA | AGGGAGTTGG | GGGAAAGCAG | 1740 |
| | CAGCAGCAGC | AGGAGCGACT | AGAGTTTCTC | CTGCCCCATT | CCCCAAACAG | AAGCTTGCAG | 1800 |
| | AGGGTTTGTG | TTTGTGCGCC | CTCTCCCTTA | CCCTGCCCAT | TCATCTGAGT | TTCTCAGCAG | 1860 |
| 80 | ACCAATTTCA | ATTATTAATA | AATGGGCGCC | CTCCCTCTTC | TTCAAGGAGC | ATCCGTGATG | 1920 |
| | CTCAGTGTTC | AAACCCACAG | CCACTTAGTG | ATCAGCTCCC | TAAACCATG | CCTAAGTACA | 1980 |
| | GGCGGATTAG | CTATCTTCCA | ACAATGCTGA | CCACCAAGCA | ATTACTGCTA | TTTTCCAGAA | 2040 |
| | GCCCACTATT | GCCTTTGCAG | TGCTTTGCGC | CCAGTCTGCG | CCTCAGCCTC | AAAGTGCACC | 2100 |
| | GACTAGTTGC | TTTCCCTATAC | CTGGCAGCTC | ATTAAGATGC | TGGGCGAGCA | TATAACAGGA | 2160 |
| | GGAGAGATGC | CCTCTCCCTT | GCTCAGATTA | TTATGTTCTC | AGTTCTCTCT | CCCTGCTACC | 2220 |

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| 5 | CTTTCTCTG CAGATAGATA GACACTGGCA TTATCCCTTT AGGAAGAGGG GGGGGCAGCA 2280 |
| | AGAGAGCCTA TTTGGGACAG CATTCCCTCTC TCTCTGCTGC TGTGACATCT CCCTCTCTCT 2340 |
| | GCTGGGCTCCA TCTTTGCTGT GCACTACCAA TTCAATGCCC TTATCCCAAT GGGTATCTAT 2400 |
| | TTTGTGTGT GATTATAGTA ACTACTCCCT GCTTTATATG CCACCCCTCT CTTCTCTTTT 2460 |
| | GACCCCTGTG ACTCTTTCTG TAACTTTCCC AGTGACTTCC CTTAGCCCTG ACCAGGCACT 2520 |
| | AGGCCITGGT GACTTCTCGG GGCCAAGAAA CTAAGGAAAC TCGGCTTTGC AACAGGCATT 2580 |
| | ACTCGCCATT GATTGGTGCC CACCCAGGGC ACACGTGTCG AGTTCTATCA CTTGCTTGAC 2640 |
| | CCCTGGACCC ATAAACCACT CCACGTGTAT ACCCGGGGCA CTCTAACCAT CACAATCAAT 2700 |
| 10 | CAATCAAAAT CCCTTAAATG TGTATGGCAC TGGAACTTTG GCAAAGCACT TTTGACAAGT 2760 |
| | TGTGTCTGAT TGGAGCTTCA TGTATGCTT GTGACATCTT TAGGGCAGGA TTCTTATCCC 2820 |
| | CATTTTGCAG ATGAAACCC TCACTCACAG ATTCTGTGG GACTGTGGAT CTCCTGSA 2880 |
| | GCTATCCCAAG AGCCCACTGT CACCTTCTAG ACCCATGAT AGGGCTAGAC AGCTCAGTTC 2940 |
| | ACCATGATTC TCTTCTGTCA CCTCTGCTGG CACACCACTG GCAAGGCCCA GAATGGGAC 3000 |
| 15 | CTCTCTTTAG CTCAATTTCT GGGCTGAGG TGCTCAGACT GCCCCCAAGA TCAATCTCT 3060 |
| | CTGGGCTGTA GTAAACCACT GGAATTAAT TGGACATGCC CCAATGCTTC TATATGCTAA 3120 |
| | GTGAAATCTG TGTCTGTAAT TGTGTGGGG GTGGATAGGG TGGGCTCTCC ATCTACTTTT 3180 |
| | TGTCAACATC ATCTGAAATG GGGAAATATG TAAATAAATA TATCAGCAAA GC 3232 |

Seq ID NO: C199 DNA Sequence

Nucleic Acid Accession #: NM_021990.1

Coding sequence: 1309..2490

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| 25 | GCCAGAGCGT | GAGCCGCGAC | CTCGCGCGAG | GTGGTGGCGC | CGGTCCTCCG | GGAATGTTG | 60 |
| | TCCAAAGTTC | TTCCAGTCCCT | CCTAGGCATC | TTATTGATCC | TCCAGTCGAG | AACATGTATA | 120 |
| | CAGAGAAAGTG | CTCAAATCAT | AAGTGTACAG | CTGATGAGTT | GTCAAAAATG | GACCACAGCG | 180 |
| | GTGTAAAGTA | AGCCAAATCA | AGGACCCGAA | TGTGAGCAGG | ACCTCAGAAG | CCCCCTTTGT | 240 |
| | CACCTGCCCTC | CAGCAAAAGG | AGCACTATCC | GGACTTTCTAA | CACCATCGGT | GAGTTTCTATA | 300 |
| 30 | CCTTGGCAGA | TGGCCTTTAA | CATTTTTGTT | TAAITCAATT | ATCTCTACTA | ATCTCTCTCT | 360 |
| | TTTTCTTGGC | TGTGGTGCAT | GGCTGTGGAG | CTCAGGGTGG | ACTCCTGTG | GGCAGCCAGT | 420 |
| | TCCTGSAATG | CTGTCTGTGG | GTGGAGGACT | CCTGCCCTTC | CNGTCTTAGAC | ACCCACAAAG | 480 |
| | GTCTCTCTTT | AGCTCTCTTC | CTCTCATCCC | CTTCCCCTGC | CCCCAGTSCA | ACGAGTATTA | 540 |
| | CACAAACCAAC | AAAACCGCAA | AATATTCCCA | CAATTTCTG | GTCTCTCTG | GGAGAGGGCCG | 600 |
| | CTCTGGCTTT | TCCCTCTCAG | CTCGGCCCTC | TGCTGTCTCC | TCACTCTCTG | TTGGTGTCTG | 660 |
| | TCAGGCTGAC | TAGAGGCCAA | GGCACAACAC | ACTAGGCCAA | CGCGCCAGC | GCTCAGACAT | 720 |
| | AAATGCCCTC | TTCATTTTAC | GTGTAAACAT | CTTTAAAAAT | CTAGGTCTTG | TTTTTGTGTA | 780 |
| | TTTTTTCTTA | AATAAAAGAG | TGATCATAAA | AGAGGGACAG | CATAGAAAGT | CCCCAAAGAG | 840 |
| | CAGCAAGGTT | TTAAGAAAT | TCACAGAGCT | AATCTGTGAC | TGTCTTATAA | TTTGTCTATTA | 900 |
| 40 | CCAGTCACAA | TTTAACTAGG | TTTTGTGTG | AAAACTGTGT | TTGGTTTGC | CTGTGCCCAA | 960 |
| | GAGGCACTAG | CTGGGGCCCC | TACAGAGTGC | AGGGCAGAGC | TTCAATTTTC | GTTTGAATGT | 1020 |
| | TCTAGGGTCG | AGGGACCTCA | GACTGAATCA | AAGAATGAAG | CCTCTTCCCG | TGAATGTGTC | 1080 |
| | TATGGCCCCC | AGCCCCAGCC | TCTGGAAAT | CAGCTCTCTC | CTGAGGAAAC | AAAGTCAACT | 1140 |
| | GAGACTGAGA | CTGGGAGCAA | AGTTGGCAA | CTGCCAGAG | CTCTCTGCAT | CCTGAACACT | 1200 |
| 45 | ATCCCTGAGTA | ATTATGACCA | CAAATCTGCG | CCTGGCATTG | GAGAGAAGCC | CACTGTGGTC | 1260 |
| | ACTGTTGAGA | TCTCCGTCAA | GACCTTGGT | CCTCTCTCTA | TCTAGACAT | GGATACACC | 1320 |
| | ATTGACATCA | TCTTCTCCCA | GACCTGTGAC | GACGAAAGCC | TCTGTTACAA | OGACACCTTT | 1380 |
| | GAGTCTCTTG | TTCTGAATGG | CAATGTGGTG | AGCCAGCTAT | GGATCCCGGA | CACCTTTTTC | 1440 |
| 50 | AGGAATTTCTA | AGAGGACCCA | CGAGCATGAG | ATCAACATGC | CCAACCAAGT | GGTCCGATCT | 1500 |
| | TACAAGGATG | GCAAGGTGTT | GTACACAATT | AGGATGACCA | TTGATGCGGG | ATGCTCACTC | 1560 |
| | CACATGCTCA | GATTTCCAAT | GGATTCTCAC | TCTTCCCTTC | TATCTTTCTC | TAGCTTTTCC | 1620 |
| | TATCCTBAGA | ATGAGATGAT | CTACAAGTGG | GAAATTTTCA | AGCTTGAAT | CAATGAGAAG | 1680 |
| | AACTCTCTGA | AGCTCTTCCA | GTTTGATTTT | ACAGGAGTGA | GCAACAAAAC | TGAATAATC | 1740 |
| | ACAACCCGAG | TTGGTGAATT | CATGGTCACT | ACGATTTTCT | TCAATGTGAG | CAGGCGGTTT | 1800 |
| 55 | GGCTATGTTG | CCTTTCAAAG | CTATGTCCTC | TCTTCCGTGA | CCACGATGCT | CTCTGGGTT | 1860 |
| | TCCTTTTGGGA | TCAAGACCTA | GTCTGCTCCA | GCGCGGACCT | CTCTAGGGAT | CACCTCTGTT | 1920 |
| | CTGACCATGA | CCACGTTGGG | CACCTTTTCT | CGTAAAGATT | TCCCCTGTGT | CTCTATATC | 1980 |
| | ACAGCTCTGG | ATTTCTATAT | CGCCATCTGC | TTGCTCTTCT | GCTTCTGGGC | TCTGTTGGAG | 2040 |
| 60 | TTTGTGTGTC | TCACTTCTCT | GATCTACAAC | CAGACAAAAG | CCCATGCTTC | TCTTAACTC | 2100 |
| | CGCCATCTCT | GTATCAATAG | CGGTGCCAT | GCGCGTACCC | GTGCACTGTC | CCGAGCCTGT | 2160 |
| | GCCCGCCAAC | ATCAGGAAGC | TTTTGTGTGC | CAGATTGTCA | CCACTAGGGG | AAGTGATGGA | 2220 |
| | GAGGAGCGCC | CGTCTGTGTC | AGCCACGACG | CCCCCTAGCC | CAGGTAGCCC | TGAAGGTCCC | 2280 |
| | CGCAGCTCTT | GCTTCAAGCT | GGCCTGCTGT | GAGTGGTSCA | AGCGTTTAA | GAAGTACTTC | 2340 |
| 65 | TGCATGCTCC | COGATTGTGA | GGGCAGTACC | TGGCAGCAGG | GCGGCTCTG | CATCCATGTC | 2400 |
| | TACCGCTCTG | ATAACTACTC | GAGAGTTGTT | TTCCCAATGA | CTTTCTTCTT | CTTCAATGTG | 2460 |
| | CTCTACTGGC | TTGTTTGGCT | TAACTTGTAG | GTACCACTG | GTACCTGTG | GGGCAACCTC | 2520 |
| | TCCAGTCCCC | CAGAGGGTCC | AAGCCCCCTG | CCAAAGGAGT | TGGGGGAAG | CAGCAGCAGC | 2580 |
| | AGCAGGAGCG | ACTAGAGTTT | TTCTTCCCCC | ATTCCCCAAA | CAGAGCTTG | CAGAGGGTTT | 2640 |
| | GTCTTGTCTG | CCCCCTCCCC | CTACCTGGCC | CATTCACTGA | GTTTTCTCAG | CAGACCATTT | 2700 |
| 70 | CAAATTTATTA | ATAAATGGGC | CACCTCCCTC | TTCTTCAAGG | AGCATCCGTC | ATGCTCACTG | 2760 |
| | TTCAAAACCA | CAGCCACTTA | GTGATCAGCT | CCCTAAAACC | ATGCCCTAAGT | ACAGGCGGAT | 2820 |
| | TAGCTATCTT | CACACAATGC | TGACCACAG | ACAAATACTG | CATTTTCCA | GAGGCCCACT | 2880 |
| | ATTGCCCTTG | CAGTGTCTTC | GGCCACTGCT | TGGCCTCAGC | CTCAAAGTGC | ACCGACTAGT | 2940 |
| | TGCTTGCTTA | TACCTGGCAC | CTCATTAAGA | TGCTGGGCGG | CAGTATAACA | GAGGAAGAG | 3000 |
| 75 | ATCCCTCTCC | TTTGGTCAGA | TTATTATGTT | CTCAGTCTC | TCTCCCTGCT | ACCCCTTTCT | 3060 |
| | CTCAGATAGC | TATAGACACTG | GCATTATCCC | TTTGAAGAAG | GGGGGGGGCA | GCAAGAGAGC | 3120 |
| | CTATTTGGGA | CAGCATTCCT | CTCTCTCTG | TGCTGTGACA | TCTCCCTCTC | CTGTGCTGGCT | 3180 |
| | CCATCTTTGG | TCTGCACTAC | CAATTCATG | CCCTTCATCC | ATGCGGTATC | TATTTTGTG | 3240 |
| | TGTGATTATA | GTAACTACTC | CCTGCTTTAT | ATGCCACCT | CTTCTCTCTC | TTTGAACCTC | 3300 |
| | GTGACTCTTT | CTGTAACCTT | CCAGTGACT | TCCCTTAGCC | CTGACCAAGC | ACTAGGCTCT | 3360 |
| | GGTGACTTCC | TGGGGCCAA | AAACTAAGGA | AACCTCGCTT | TGCAACAGGC | ATTACTCGCC | 3420 |
| | ATTGATTGGT | GCCCAACCCAG | GCCACACCT | GGAGATCTTA | TCACTTGCTT | GACCCCTGGA | 3480 |
| | CCCATAAACC | AGTCCACTGT | TATACCCGGG | GCACTCTAAC | CATCAACATC | AATCAATCAA | 3540 |
| 80 | ATTCCCTTAA | ATTTGTATGG | CACTGGAAC | TGGGCAAGC | ACTTTTGACA | AGTTGTGTCT | 3600 |

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Seq ID NO: C200 DNA Sequence
Nucleic Acid Accession #: NM_021819.1
Coding sequence: 39..1619

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GGCTGACCC ATCCATGAGG AACCGAGTG GCGCGTGTG GAGCAGGGCC TCTGTCCCT 300
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Seq ID NO: C201 DNA Sequence
Nucleic Acid Accession #: XM_117036.1
Coding sequence: 25..495

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Seq ID NO: C202 DNA Sequence
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Coding sequence: 1162..1488

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TGGGCGAGG CCGGGTAGG CTAGCACGG AGGTAAAGGT GTTATGGAT GCGGCGGGG 660
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GAGCCCTGGCC ACCATCCCGAG GACTTTGGGC AAGTCACCCG CACTCCCTGG GCCTCGGTTT 780
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Seq ID NO: C203 DNA Sequence
 Nucleic Acid Accession #: NM_024780.1
 Coding sequence: 31..1023

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Seq ID NO: C204 Protein Sequence
 Protein Accession #: Bos sequence

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 CAGTGGAGAA GAAGGCTTGC AGGAGGCAGG AGATGCTGTC CGATGACCAAC GTGAATGAAA 240
 TCATCATACA GGTTGAGAA GTTTCCTCTG GGGTCCAAAG CCACCCATCC TCAATCAGA 300
 TTTTCAAGA AAAGGTGCTG CTAGACTCAA GCATCAACAT GGTTTTGTCA ATATCTGACA 360
 TTGATGTGAT AGACTCTCAG ACAGTCAACA AAAGGAATGA CCAAAAGGGT AACCAAGTGC 420
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 CCTTATACC CATGACATCC AGAGACAGAA TTAAGCCAT CAGGAACCA CCAAGGACCA 600
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 TGACCACTCG CTCTCTCAGT TTGCTGTTC GCATGGCCAA GTATTTCGGG AACCACTTCA 1140
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 ACCCTGCAGA GCTCCGTGAG GAGAATTCOA APTTGAAGTT CAATCAGCTG CTGACCCGCT 1320
 TCTCTGCCCA TGGGTGTCT CTACAGGAGT GGCCATAGCC TGCTGTGCG 1380
 CGGTTTATTA CCGTGTGAG TACAACCTAG AGTTCTGTAA GACACACAGT AACCTGGGG 1440
 CGGTGCTGTT ACTGCTTTC GTTGCTCTCT GCATTAACT GGGCTGGCCA TGCATCTACT 1500
 CCATGTTTCA GCTTGTGGAG AGGTACGAGA TGCCACGCGA CGAAGTCTAC GTTCTCTGTA 1560

| | | | | | | | |
|----|------------|------------|------------|-------------|-------------|------------|------|
| 5 | TCGAAACAT | CTTTTGA | ATATCAATCA | TGGCATCT | TGTTACTAT | TGGCTCAACA | 1620 |
| | CCGTGGCCCT | GTCTGGTGA | GAGTGTGGG | AAACCCCTCAT | TGGCCAGGAC | ATCTACCGGC | 1680 |
| | TCCTTCTGAT | GGATTTTGTG | TTCTCTTTAG | TCAATTCCTT | CCTGGGGGAG | TTTCTGAGGA | 1740 |
| | GAATCATTGG | GATGCAACTG | ATCACAAGTC | TTGGCCCTTCA | GGAGTTTGAC | ATTGCCAGGA | 1800 |
| | ACGTTCTAGA | ACTGATCTAT | GCACAACTC | TGGTGTGGAT | TGGCATCTTC | TTCTGCCCCC | 1860 |
| | TGCTGCCCTT | TAIXCAAATG | ATTATGCTTT | TCATCATGTT | CTACTCCAAA | AATATCAGCC | 1920 |
| | TGATGATGAA | TTTCCAGCCT | CCGAGCAAG | CCTGGCGGGC | CTCAGAGATG | ATGACTTTCT | 1980 |
| | TCATCTTCTT | GTCTTTTTC | CCATCCTTCA | CCGGGGTCTT | GTGCACCTG | GCCATCACC | 2040 |
| 10 | TCGGAGATT | GAAGCCTTCA | GCTGACTGIG | GCCCTTTTGG | AGGTCTGCTT | CTCTTCATTC | 2100 |
| | ACTCCATCTA | CAGCTGGATC | GACACCTTAA | GTACACGGCC | TGGCTACCTG | TGGTGTGTTT | 2160 |
| | GGATCTATCG | GAACCTCAT | GGAAGTGTC | ACTTCTTTTT | CATCCTCACC | CTCATTGTGC | 2220 |
| | TAATCATCAC | CTATCTTTAC | TGGCAGATCA | CAGAGGGAAG | GAAGATTATG | ATAAGGCTGC | 2280 |
| | TCCATGAGCA | GATCATTAAT | GAGGGCAAG | ATAAAATGTT | CCTGATAGAA | AAATGATCA | 2340 |
| 15 | AGCTGCAGGA | TATGAGAAC | AAAGCAAACC | CCAGCTCACT | TGTTCTGGAA | AGGAGAGAGG | 2400 |
| | TGGAGCAACA | AGGCTTTTGG | CATTGTGGGG | AAATGATGAG | CAGTCTTGAC | TTCGATCTA | 2460 |
| | GAAGATCAGT | TCAAGAAAGT | AATCCAAGG | CCTGATGACT | CTTTTGGTAA | CCAGACACCA | 2520 |
| | ATCAATAAG | GGAGGAGAG | GAAATGGAA | TGATTTCCTC | CATGCCACCT | GTGCCCTTAG | 2580 |
| | GAACCTGCCA | GAAGAAATC | CAAGGCTTTA | GCCAGGAGCG | GAACCTGACT | ACCATGTAAT | 2640 |
| 20 | TATCAAAGTA | AAATTGGGCA | TTCCATGCTA | TTTTTAATAC | CTGGATTGCT | GATTTCATCA | 2700 |
| | GACAAAATAC | TTGGGGTTTT | CCAATAAAGA | TGTTGTGAAT | ATTGAAANRA | RMMAMAAAA | 2760 |
| | ACCTAGGAAG | AGATAACTAG | GGAATAATGT | ATATTATCTT | CAGAAGTGT | GTCCAGGAAT | 2820 |
| | GATTGGTTCT | TAGAAATCTC | TCTTCCAGCA | CTTCCAGAC | CTGGCAAGG | TTTAGAACT | 2880 |
| | GTGCTAAGA | AAAGTGGTCC | ATCCTGAATA | AACATGTAAT | ACTCCAGCAG | GGATGTGAAG | 2940 |
| 25 | CCTCTGAATT | TATGAACTG | CATTATTG | TGACTTTGAA | CTAAAGACAT | CCCCATGTC | 3000 |
| | CCAAAGTGG | AATACACCA | GAGGTCTCAT | CTCTGAACCT | TCTTGCTTAC | TGATTACATG | 3060 |
| | AGTCTTTGGA | GTGCGGATG | GAGGAGGTT | TGCCCTGTG | AGGTGTTATA | CATGACCATC | 3120 |
| | AAAGTCTTAC | GTCAAGCTAG | CTTTCAGTG | GCAGTACCGT | AGCCAAATGAG | ATTATCCGA | 3180 |
| | GACGCBATTA | TGCTAATTG | GAAATTTTCC | CAATACCCCA | CCGTGATGAC | TTGAAATATA | 3240 |
| 30 | ATCAGCGCTG | GCAATTTTGG | ACAGTCTCTA | CGGAGACTGA | ATAAG | | 3285 |

Seq ID NO: C205 DNA Sequence
Nucleic Acid Accession #: NM_002250.1
Coding sequence: 397..1680

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| | TGTGACAAAG | CCCATCTGT | GTCTGTGTGT | GTCTTTATCC | ACGTGGATGG | ACGTCTCTTT | 120 |
| 40 | CTTGTCTCTG | CCCAAGACAC | ACCCTAGCCC | CTCCTTATTC | TCAAAAGGGG | GAGCTGGGGA | 180 |
| | GCCCTCCCTT | ACCTTGGGGC | CTCCCTGCCC | CCTCCCGCCC | CTGCTTGGCC | GTCCACACTC | 240 |
| | CCAGAGGGC | ACAGGGCTCT | GCTGTGCTTC | AGAGCAAAAG | TCCAGAGGCC | AGCAGAGCAG | 300 |
| | GCTGACGACC | TGCAAGCCAC | AGTGTGCTGC | CTGTGGTGGC | TGGGAGGTGG | GGGACCTGG | 360 |
| | GCAGGAGCT | GGCTGAGCCC | CAAGACCCCG | GGGGCCATGG | GGGGGATCT | GGTGTCTGGC | 420 |
| 45 | CTGGGGGCT | TGAGAGCTCG | AAAGGCTTGG | CTGGAGCAGG | AGAAGTCTCT | GGCGGGCTGG | 480 |
| | GCATCTGGTC | TGGCAGGAAC | TGGCATTTGA | CTCATGGTGC | TGCATGCAGA | GATGTCTGTG | 540 |
| | TTCGGGGGGT | GCTCTGTGGC | GCTCTACCTG | TTCTTGGTGA | AAATGCAAGAT | CAGCATTTCC | 600 |
| | ACCTTCTTAC | TCCTCTGCTT | CATGTGGGCC | TTTCATGCCA | AAGAGGTCCA | GCTGTTCATG | 660 |
| | ACCBACACAC | GGCTGTGGGA | CTGGCTGGTC | GGCTGTGGTC | GGCGGAGGGC | GGCGGAGATC | 720 |
| 50 | GTGCTGGAGC | TGGTGTGGTG | TGGGCTGGAC | CCGGCGCCCG | TGGGGGGCTC | GGCGTGGCTG | 780 |
| | CAGGATTTAG | GGGCGCCGCT | GACCTCCCTG | CAGCCCTGGC | CGGATTTCC | GGCCCAAGGG | 840 |
| | GAAGGCTGTC | TGTCCCTGGC | CATGCTGGCT | CGTCTCTACC | TGGTGGCCCG | CGCCGTGCTC | 900 |
| | CTGGCGACGC | GCTCTCTGCT | CAACGCTTCC | TACCGCAGCA | TCGGGGCTCT | CAATCAAGTC | 960 |
| | CGCTTCCGCC | ACTGGTTCTG | GGCCAGCTT | TACATBAACA | CGCACCCCTG | CGCCCTGCTG | 1020 |
| 55 | CTGGGCTTCA | CGCTTGGCCT | CTGGCTGACC | ACCGGCTGGG | TGCTGTCCGT | GGCCGAGAGG | 1080 |
| | CAGGCTGTGA | ATGCCACTGG | GCACTTTTCA | GACACACTTT | GGCTGATCCC | CATCACAATC | 1140 |
| | CTGACCATCG | GCTATGGTGA | CGTGGTGGCG | GGCACCATGT | GGGGCAAGAT | CGTCTGCTTG | 1200 |
| | TGCACTGGAG | TCATGGGTGT | CTGCTGCACA | GCCCTGTGGG | TGGCGGTGGT | GGCCCGGAAG | 1260 |
| | CTGGAGTTTA | ACAAGGCAGA | GAAGCACGTC | CACAACTTCA | TGATGGATAT | CCAGTATACC | 1320 |
| 60 | AAAGAGATGA | AGGATGCTCG | TGCTTCAATG | CTACAGAGAG | CCTGGATGTT | CTACAAACAT | 1380 |
| | ACTGCGAGGA | AGGAGTCTCA | TGCTGCCCGC | AGGCATCAGC | GCAGCTGCT | GGCCGCCATC | 1440 |
| | AACGGTTTCC | GCCAGGTGCG | GCTGAACAC | CGGAAGCTCC | GGGAACAAAT | GAATCTCATG | 1500 |
| | GTGACATCT | CCAAGATGCA | CATGATCTTG | TATGACTTGC | AGCAGAACT | GAGCAGCTCA | 1560 |
| | CACCGGGCCC | TGAGAAACCA | GATTGACACG | CTGGCGGGGA | AGCTGGATGC | CCTGACTGAG | 1620 |
| 65 | CTGCTTAGCA | CTGCCCTGGG | GCGGAGGCG | CTTCCAGAAC | CCAGCCAGCA | GTCCAAGTAG | 1680 |
| | CTGGACCCAC | GAGGAGGAAC | CAGGCTACTT | TCCCCAGTAC | TGAGGTGGTG | GACATGCTCT | 1740 |
| | CTGCCACTCC | TGACCCAGCC | CTGAACAAAG | CACCTCAAGT | GCAAGGACCA | AAGGGGGCCC | 1800 |
| | TGGCTTGGAG | TGGGTTGGCT | TGCTGATGGC | TGCTGGAGGG | GACGCTGGCT | AAAGTGGGTA | 1860 |
| | GGCCTTGGCC | CACCTGAGGC | CCCAAGTGGG | AACATGGTCA | CCGCCACTCT | GCTATCCCTC | 1920 |
| 70 | ATCAAAAACA | CTCTCACTAT | GCTGCTATGG | ACGACCTCCA | GCTCTCAGTT | ACAAGTGCAG | 1980 |
| | GCTACTGGAG | GCAGGACTCC | TGGGCTCCCTG | GGAAAGAGGG | TACTAGGGGC | CCGGATCCAG | 2040 |
| | GATTCTGGGA | GGCTTCAAT | ACCGCTGGCC | GAGCTGAAGA | ACTGGGTATG | AGGCTGGGGC | 2100 |
| | GGGGCTGGAG | GTGGGCCCCC | CTGGTGGGAC | AACAAAGAGG | ACACCAATTT | TCCAGAGCTG | 2160 |
| | CAGAGAGCAC | CTGGTGGGGA | GGAAGAAAGT | TAACTCACCA | GCCTCTGCTC | TTATCTTTGT | 2220 |
| 75 | AATAATGTT | AAAGCCAG | | | | | 2238 |

Seq ID NO: C206 DNA Sequence
Nucleic Acid Accession #: NM_025257.1
Coding sequence: 1..2139

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| | CCCTCTTTTC | GAGGCCCCAT | CAAGAACABA | AGCTGCACAG | ATGTCACTCT | CTGGCTCTCT | 120 |
| | TTCTGTCTCT | TCATCTTAGG | TTACATCGTG | GTGGGGATTT | TGGCTCGTTT | GTATGGAGAC | 180 |

5 CCCCAGGCAAG TCCTCTACCC CAGGAACCTCT ACTGGGGCTT ACTGTGGCAT GGGGGAGAAC 240
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 ATCTCAGTTG CTGAGAACCG CCTACAGTGC CCCACACCCC AGGTGTGTGT GTCTCTCTGC 360
 CCGGAGGACC CATGGACTGT GGGAAAAAAC GAGTTCACAC AGACTGTGG GGAAGCTCTC 420
 TATACAAAAA ACAGGAACCTT TTGTCTGCCA GGGGTACCTT GGAATATGAC GGTGATCACA 480
 AGCCTGCAAC AGGAACCTCTG CCCCAGTTTC CTCTCTCCCT CTGCTCCAGC TCTGGAGCGC 540
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 10 ATCTTTGAAG ATTTTGCCCA GTCTTGGTAT TGGATTCTTG TTGCCCCTGG GGTGGCTCTG 720
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 CTGATCTCTG GAGTGTCTGG CGTGTGGCA TATGGCATCT ACTACTGCTG GGAGGATAC 840
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 ACCTTTGTCC TCCTCTCTCAT CTGCATTGCC TACTGGGCCA TGACTGCTCT GTATCTCTCTG 1140
 CCCAGGACCA TCCCTACCTT CCGCTTAATC TCTGGCTTCA TCCGCACACT CCGTACCAC 1200
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 GCGCTGGGCC AATGGCTCTT CGCTGGAGCC TTTGCTTCTT TCTACTGGGC CTTCACAAAG 1440
 CCCAGGACCA TCCCTACCTT CCGCTTAATC TCTGGCTTCA TCCGCACACT CCGTACCAC 1500
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 25 TTGAGTATA TTGACCAAA GCTCAGAGGA GTGCAGAAC CTGTAGCCCG CTGCATCATG 1620
 TGCTTTTCA AGTGTCTGCT CTGGTGTCTG GAAAAATTA TCAAGTCTCT AAACGCAAT 1680
 GCATACATCA TGATCGCCAT CTACGGGAG AATTTCCTGT TCTCAGCCA AAATGCTTC 1740
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 TTGTGTAAA AAGAGGTTT AGGCTAGGCG CCGTGGCTCA GCGCTGTAAT CCAACACTTT 2280
 GAGAGGCTGA GCGCGGCGGA TCACCTGAGT CAGGAGTTCG AGACCGCCTT GGCACACATG 2340
 GTGAAC 2347

Seq ID NO: C207 DNA Sequence
 Nucleic Acid Accession #: NM_016180.1
 Coding sequence: 26..1618

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 GGCAGCGTAT GTGACCCGAG TCCTGCTCAG CGTAGGTCTG CCCAGCAGCC TGTACAGCAT 240
 50 TGTGTGTTTC CTGAGCCGCA TCCTGGGATT CCTGTGCGAG CCCGTGGTGG GATCGGCGAG 300
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Seq ID NO: C208 DNA Sequence
 Nucleic Acid Accession #: NM_003273.1
 Coding sequence: 255..2024

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Seq ID NO: C209 DNA Sequence
 Nucleic Acid Accession #: NM_015720.1
 Coding sequence: 21..1838

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TCATCATTCG GCTTGGCTG CTCTACAACT GCTGGCAGCG CGGCTTGGC AAGCTCAGC 1620
ACGTGTGCA CCGCGAGGAG CTGCGCTTGG TGGAGAACGG CTGCCACGAC AACCCACGC 1680
TGGAGTGGC CAGCGACAGC CAGTGGGAGA TGCAGGAGAA GCACCCAGC CTGAACGGCG 1740
GCGGGGCCCT CACGCGCCCG GGGAGCTGGG GGGCGCTCAT GGGGGGCAAG CGGACCCCG 1800
AGGACTCGGA CGTGTTOGAG GAGGACAGCG ACCTGTGAGC GCAGCGAGGC GCAGGCGGAG 1860
TGGGCGGCGA GGACCAAGCG AGGTGGADCC CGAAACGGAC GGCCTGGAGC CCGCACGAGC 1920
CCCGCGCTA CCGCGCGCGC CCGCGCGCTG GCGCTCGCG CGGGCTCTT CCGCTTCCC 1980
CCGACTTAC ACGGCGGCTT CCGACCAACT CCTCACTCC CGCCCGAGG GCAGGCTTCA 2040
AAGCCGCTT TGGCCCGCTT TTCCCGGCC TGAACCCCG CCGCGCGGC GCGCGCGCG 2100
CTTCTGTGCG CCGCGGACTC AATTAACCC GCGCGGAGC CAGCGGGCC CAGCGAAAA 2160
AAAAAAA AAAA AAAA AAAA AAAA AAAA AAAA AAAA AAAA AAAA AAAA 2220
AAAAAAA AAAA AAAA AAAA AAAA AAAA AAAA AAAA AAAA AAAA AAAA 2260
  
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Seq ID NO: C210 DNA Sequence
 Nucleic Acid Accession #: NM_001197.3
 Coding sequence: 61..543

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1 11 21 31 41 51
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GACACGAAGC CTCCCGGGTG GCTTACAGAC GCTGCCAGCA TCGCCGCTG CAGAGGAGAA 60
ATGTCTGAAG TAAGACCCCT CTCAGAGAC ATCTTGATGG AGACCTCTCT GTATGAGCAG 120
  
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CTCTCGGAAC  CCCCAGCCAT  GGAGGTTCTT  GGCATGACTG  ACTCTGAAGA  GGACCTGGAC  180
CCTATGGAGG  ACTTCGATTG  TTTGGAATGC  ATGGAGGGCA  GTGACGCATT  GCGCCCTGGG  240
CTGGCCTGCA  TCGGGGACGA  GATGGACGTC  AGCCTCAGGG  CCCCAGCCCT  GGCCAGCTC  300
TCGGAGGTTC  CCAAGACACG  CCTGGGTCTG  GCTTTCATCT  ACGACCAGAC  TGAGGACATC  360
AGGGATGTTT  TTAGAAGTTT  CATGGACGGT  TTCACCAAC  TTAAGGAGAA  CATAATGAGG  420
TTCCTGAGAT  CCCCAGCCAT  CGGTCCTGCG  GTGTCCTGCG  AACAGGTGCT  GCTGGCGCTG  480
CTGCTGCTGC  TGGCGCTGCT  GCTGCGCGTG  CTCAGCGGGG  GCCTGACACT  GCTGCTCAAG  540
TGAGGCCCGG  GCGGCTCAGG  GCGGGGCTGG  CCCACCCGCC  ATGACCACTG  CCTTGGAGGT  600
GGCGGCTGCT  TGCTGTATC  TTTTAACTG  TTTTCTCATG  ATGCTTTT  ATATTAAAC  660
CCCGAGATAG  TGCTGGAACA  CTGCTGAGGT  TTTTACTCA  GGTTTTGT  TTTTTTTAA  720
TTCCAGTTT  CGTTTCTT  AAAAGATGAA  TTCTATGGC  TCTGCAATG  TCAACGGTTA  780
ACTGTGGCT  GTGCCAGGA  AGAGCCATTC  ACTCCTGCC  CTGCCACAC  GGCAGGTAGC  840
AGGGGAGTG  CTGGTCACAC  CCTGTGTGA  TATGTGATG  CCTGGGCAA  GAATCTACTG  900
GAATAGATT  CGAGGAGCAG  GAGTGCTCAA  TAAATGTG  GTTTCAGCA  AAAAAAATA  960
AAA

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Seq ID NO: C211 DNA Sequence
Nucleic Acid Accession #: AF272357
Coding sequence: 83..1060

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1      11      21      31      41      51
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GCTGCTCCG  ACGCGGAGCC  CGAGGCCGCG  GCGAGGCCCG  TGGCCTCGCG  GTGCCATGCT  60
GCCCCGCGCG  CGGCGCTGAA  GATGGCGGAC  GCTGCTGCTG  GCGCCTGCTG  GCGCGCACCT  120
GCGGCTGCTG  CGCTGCTGCT  TCTCCGCGCT  GCTGCTGCTG  GCGCCTGCTG  GTGGAGCGCG  180
CGCCCGCCAC  CCGATGTAG  CCGCCTGTCC  CGGAGGCTCG  GACTGTGCTG  TGAAGAGGGG  240
GGCAAGGTGT  CCTGCTGCTG  CACATGCTGC  TGGGCGCTGC  CTTCAGCCCT  TCCAGGAGGA  300
CCAGCAAGGG  CTCTGTGTGC  CCAGGATGCG  CCGGCTCCA  GCGCGGCGCC  GGCCCGAGCC  360
CAGACTGAAA  GATGAGATG  ACTTCTGCG  CCAGGAGCTT  GCGCGGAGG  AGTCTGAGTA  420
ATCAACTCG  CCGCTACCCA  AGGACCGACA  GCGGCTCCG  GAGCCTGCCA  CCTTGGGCTT  480
CTGCGACCG  GGGCAGGGCG  TGGAGCTGG  CCGCCTGCC  ACTCCAGGAA  CCGCCACGCG  540
CAGCGCCAC  ACTGCTGCT  GCTGCTGCT  GTCATCCGAC  CCGGTGACCA  TGTGCGCCCT  600
GGAGCCCGCG  GAGGCGCAAG  GCGAGCGCT  CCGCCTGTG  CTGATCCTG  CGTTCTGTGT  660
GGCGGCTGCA  GCGCCTCTCT  CCGTGTGCT  CCGTGTGCT  TCGAGGCTGC  AGCGTGAAT  720
CGCCTGACT  CAGAGGCGCG  ACTACGCCAC  TCGAGGCGCG  CCGGCTCAC  CTGCGCTCC  780
CGGATCTCG  CCGGCGGACC  AGCGCTGCG  ACAGAGCGCG  GAGATGTACC  ACTACGACGA  840
CCAGCGCAA  CAGATGCTGT  GCGTGGAGCG  GCATAAGAG  CCACCAAGG  AGCTGGACAC  900
GGCCTCTCG  GATGAGGAGA  ATGAGGACCG  AGACTTCAG  GTGTACAGGT  GCGCGGCGCT  960
GGCCTGAGC  GCGCGCTGCG  AGGTGCGCAA  CCGTCTGCT  GACCAAGCG  CACTGTCCCG  1020
GCGCCTGCG  GCGCGCTGCG  CCGCGCTGCG  ACTGCGCTG  CCGGAGGCG  GACAGAGCG  1080
CAGCTGCTCC  GCGACCTGCA  GCGCGCGCG  GCGCGCGCG  GCGTGGAGCT  TCCCACTAAA  1140
AAGATGTTT  GATGCTGTGT  GCTTTTGGCT  GCGCCTCGCG  CTCCAGGCG  TGGGACCCCT  1200
TGCCAGGAG  ACCCCCGAAC  CTTTGTGCG  GGACACTCC  TGGTCCCTG  CAGCTCTCT  1260
GTTGCTTTA  AGCCCCAAA  CTGGAGGGGG  CATGGAGAAC  CGTAGAGCG  AGGAACGGGT  1320
GGTAATTCT  AGAGACAAA  GCAATTTAAA  GTCCATTCA  GAAAAAATA  A  1371

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Seq ID NO: C212 DNA Sequence
Nucleic Acid Accession #: NM_004445.1
Coding sequence: 799..3819

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1      11      21      31      41      51
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GACCGCGGAC  CAGCTGTGCT  GACCGCGGAT  CTGACGCGG  GCGCGCGG  TCTCCCGCG  120
GCGCCACTCT  TGGAGCAGCC  CCGCGCGCA  GCGTCAAGTC  CACCGCGGAA  TCCGAGGAG  180
TCTGCGCGCG  GAAACGACCC  GCGCGCGTGC  AACGGGTGCG  CCGGACTGGA  GAAGACGCG  240
GTGGCACCGT  GCGAGCTCCA  GGAGCCCGCG  GTCCACTGCG  AGGCTTCGCG  GCGCGCAGAC  300
CTGCGAGAGC  TCGCGCCAC  GCGAGAGAT  AAGGGGATTA  TAGTCCACCC  AATTACAGA  360
CTTCTGAGAC  TCAGACACA  GGAGAGATAG  AGAACCGGCA  ATCTCTAGAT  CAACAAGCAA  420
AGGAGGTGCC  AAGCCTGTGT  GTCCTCATG  TGACACTGGA  GTCTAGATGC  TGGGAAGTCC  480
AAGATCAGGG  TCGCGCATG  GTCAGTTCTT  GCGAGAGCCT  CTCTCTAGG  TTTCACTG  540
CCCTCTCTT  TGTGTGTGCT  TCGAATGCGA  GAAAAAGGG  TGGCTGTTG  AGGAAGGAG  600
GAGAGTAAAT  GAAGAGAAAG  AACTGGAATA  ACCCTTGCA  GAAAAAATA  AAAAGGAGG  660
CTTAGCTGTA  CACCTGAGT  CTTGCAAAAG  CTGACGCGCG  ACCAGGAGC  AGGCTGTGCG  720
CTGGGCGGAT  GGTGGACGCC  CTGAAGATGT  CCGATGGCTA  CTGAAGGGCG  TGCCAGTTA  780
GGGAACAGAG  TGGCGGCGAT  GGTGTGTAGC  CTATGGGTGC  TGCTCTGCT  GTCCTCAGTT  840
CTGCTCTGCG  AAGAGGTATT  GCTGGAACAC  ACCGAGAGAG  CATCTGAGAT  TGGCTGGCTC  900
ACCTACCCAC  CAGGGGGGTG  GAGAGAGGTG  AGTGTCTGCG  AGGACGAGCG  AGGCTGAGCT  960
CGGACCTTGG  AGGATGTGCA  TGTGCGAGGG  GCGCCTCCAG  GCACCGGGCA  GGACAAATGG  1020
TGTGACAGAC  ACTTGTGCG  GCGGCGCGCG  GCGCAGAGGG  CGCATTGCG  ACTCCACTTC  1080
TCTGTGCGCG  CATGCTGCG  AGCGCGCGCG  AGCGCGCGCA  CCGCGCGGGA  GACTCTCAC  1140
CTTTACTACC  GTCAGGCTGA  GGAGCCCGAC  AGCGCTGACA  GCGTTTCTCT  CTGGCAGCTC  1200
AAACGCTGGA  CCAAGGTGGA  CACAATTGCA  GCAGACGAGA  GCTTCTCTCT  CTCTCTCTCT  1260
TCTCTCTCT  CTCTCTCTCT  TGACGCTGCG  GCTGTGCGAC  CCGCGCGGCG  TGGGCGAGCG  1320
GCTGCTGCTG  AACTGAAAGT  CAAAGAGCGG  AGCTTTGGCG  CTCTACCCCA  CCGCGGCTTC  1380
TACGTGGCTT  TCGCGGCTGC  GGGGCGCTGC  CTGGCGCTGC  TCGCTGTGAG  GCTCTTCTCT  1440
TACACCTGCC  CTGCGGCTGC  CCGATCTTCT  GCTTCTCTCT  CAGAGACGCA  GCGCAATGGG  1500
GCTGCGGCGG  CCGCTCTGCT  GGCAGCTGTG  GGCAGCTGTG  TGGCTCATGC  AGAGCGAGAG  1560
GAGGATGAG  TAGGGGCGCA  GGCAGAGGCG  AGCGCGCGCA  GCGTGTGCTG  CAACCGGAG  1620
GGCAAGTGA  TGTGAGCTGT  CCGGGGCTGC  GCGTGTGCTG  CTGGATACCA  ACCAGGACGA  1680
GGAGACAGG  CTGCTCAAGC  CCGCCACGCG  GCGCTCTATA  AGTCTTCTGC  TGGGAATGCT  1740
CCTGCTCTAC  CATGCCCTGC  CCGCAGTCA  GCTCCCAACC  CAGCAGCGCC  CGTTTGGCGC  1800
TGCTTGGAGG  CTTTCTACCG  GCGCAGTCT  GAGCCACGAG  AGGCGCGCTG  CACTGCTCT  1860
CCATCGGCTC  GCGAGGAGCT  TTGGTTTGA  GTGCAAGGCT  CAGCACTCAT  GCTACACTG  1920

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CGCTGCTC GGGAGCTGGG GGGTCGAGGG GAOCTGCTCT TCAATGTGCT GTGCAAGGAG 1980
TGTAAGGCC GCCAGGAACC TGCCAGCGGT GGTGGGGGCA CTGTGCACCG CTGCAGGGAT 2040
GAGGTCCACT TCCACCTTCG CCAGAGAGGC CTGACTGAGA GCCAGTGTGT AGTGGGGGGA 2100
CTCCGGGCAC AGCTACCTTA CATCTTAGAG GTGCAGGCTG TTAATGGGGT GTCTGAGCTC 2160
AGCCCTGACC CTCTCAGGC TGCAGCCATC AATGTGAGCA CCAGCCATGA AGTCCCTCT 2220
GCTGTCCCTG TGGTGCACCA GGTGAGCCGG GCATCCAAAC GCATCACGGT GTCTGGCCCG 2280
CAGCCCGACC AGACCAATGG GAACATCCTG GACTATCAGC TCCGCTACTA TGACCAGGCA 2340
GAAGACGAAT CCCACTCTTT CACCTTGACC AGCGAGACCA ACACCTGCCAC CGTGACACAG 2400
CTGAGCCCTG GCCACATCTA TGGTITCCAG GTGCGGGGCC GGACTGTCTG CGGCCACGGC 2460
CCCTACGGGG GCAAGTCTTA TTCCAGACA CTCTCTCAAG GGGAGCTGTC TTCCAGCTT 2520
CCGGAAGAGC TCTCTTGGT GATCGCTCC ATCTGCGGG CTTTGGCTTT CCTCTGCTG 2580
GCAGCCATCA CGTGTCTGGC GGTCTCTTC CAGCGAAGC GGGCTGGGAC TGGCTACAG 2640
GAGCAGCTGC AGCAATACAG CAGCCCAAGG CTGCGGGTGA AGTATTACAT CGACCCCTCC 2700
ACCTACGAGG ACCCTGTCA GGCATCCGA GAACCTGCCC GGGAGTCCGA TCCTGCTTAT 2760
ATCAAGATTG AGAGGTCTAT TGGGACAGGC TCTTTTGGAG AAGTGCACCA GGGCCGCTG 2820
CAGCCAGAGC TCTCTTGGT GATCGCTCC ATCTGCGGG CTTTGGCTTT CCTCTGCTG 2880
GAAGCCCTGC AGATGACCTT CCTGCGCCGG GCGCAGTGC TGGGTCAATT CCAGCACCCC 2940
AACATCTCTG GGTCTGAGGG COTGTCTACC AAGAGCCGAC CCTCATGCT GCTGACGGAG 3000
TTGATGAGAG TTGGCCCTCT GACAGCTTTC CACAGGCAGC GGGAGGGCCA GTTCAGCAGC 3060
CTGAGCTGCG TGGCCATGCA GCGGGGAGTG GCTGCTGCCA TGCACTACCT GTCCAGCTTT 3120
GCCTTCTGTC ATCTCTGGT GTCTGCTCC AGCTGCTGG TGAATAGCCA TCTGGTGTGC 3180
AAGTGGCCCT GTCTTGGCCA CAGTCTCAG GCGCCAAAGT GTTTGCTTCG CTGGCAGCC 3240
CCAGAGGTCA TTGCACATGG AAGCATACA ACATCCAGT ATGTCTGGAG CTTTGGGATA 3300
CTCATGTGGG AAGTGTGAG TTATGGAGAA CGGCTTACT GGCACATGAG TGAGCAGGAG 3360
GTACTAAATG CAATAGAGCA GAGTTCCGG CTGCCCCCGC CTCCAGGCTG TCCTCTGGA 3420
TTACATCTAC TTATGTGGA CACTTGGCAG AAGAACGCTG CCGCGCGGCC TCATTGTGAC 3480
CAGCTGTGCG CTGCAATTGA CAGATGATC CGCAAGCCAG ATACCTTGA GGTCTGGCGG 3540
GACCCAGGGG AAGGCGCTTC CCAGGCGCTT CTGACCCCTG TGGCCCTGGA CTTTCTCTGT 3600
CTGAGCTCAG CCGAGCCCTG GCTTTCAGCC ATTGAGCTGG AGTGTCTACA GGACAACTTC 3660
TCCAAAGTTG GCCTCTGTAC CTTCAGTAT GTGGCTCAGC TCAGCTTACA AGACCTGCT 3720
GCCCTGGGCA TCCCTCTGGC TGGCCACCAG AAGAACTGCT TGCAACACAT CCAGCTCTCT 3780
CAGCAACACC TGGGCGAGCA GGGCTCTAGT GAGGTCTGAG AATGACATA CCGTGACTC 3840
AGCCCTGGAC ACTGGTCCGA GAAGGGACAT GTGGGAGCTG AGCCCGGCTC CAACAGCCCT 3900
TGTGAGAGAT GCCCCACACC AAACCCACCC CTCCCGATGG CTGCATTCCC TGGTCTCCG 3960
CCTCTCACCC AGCCCTCTCC TCATTAAAGG GAAAGAGGG AATTGCAAA 4010
  
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Seq ID NO: C213 DNA Sequence
 Nucleic Acid Accession #: XM_043340.4
 Coding sequence: 195..1067

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1 11 21 31 41 51
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GTGGGAGTGT GAGAGTGTCA GGGGGGCGGC CGGCGGGGCG GGGCGGCGCG GAGGAGGCGT 120
TGGCAGCGGG CTGGGACCCA CGCGGCGCGC CGGCGCGGCT GGCTTGCAGC GCTCCACCCC 180
CGCGCGGCGG CAGAGTGCCT TTGACTTCA GAGGTTTGA CATCTACAGG AAGGTGCCCA 240
AGGACCTTAC GCGAGCAACG TACACCGGG CCATTATCTC CATCTGCTGC TGCTCTTCA 300
TCCTCTTCTT CTCTCTCTCG GAGCTCACCG GATTATAAC GACAGAAGTT GTGAACGAGC 360
TCTATGTGGA TGACCCAGAC AAGGACAGCG GTGGCAAGAT CAGCTCAGT CTGAACATCA 420
GTTTACCCAA TCTGCTCTGC GAGTGTGTTG GCTTGCATC TCAGGATGAG ATGGGCGAGC 480
ACGAAGTGGG CCACATCGAC AACTCCATGA AGATCCCGCT GAACAAATGG GCAGGCTGCC 540
GCTTGGAGGG GCACTTACG ATCAACAGG TCCCGGCAA CTTCACGCTG TCCACACACA 600
GTGCCACAGC CCAGCCACAG AACCCAGACA TGACGCAATG CATCCACAAG CTCTCTTGT 660
GGGACACGCT ACAGCTCAG AACATCCAG GAGCTTCAA TGCTCTGGG GGAGCAGACA 720
GACTCACCTC CAACCCCTG GCCTCCACG ACTACATCTT GAAGATTGTG CCAAGGCTTT 780
ATGAGGACAA GAGTGGCAAG CAGCGGTACT CTAACAGTA CAGGCTGGCC AACAGGAAT 840
ACGTGCGCTA CAGCCACAG GCGCGCATCA TCCCTGCAAT CTGGTTCCGC TAGACCTCA 900
GCCCATCAC GGTCAAGTAC ACAGAGAGAC GGCAGCCGCT GTACAGATTG ATCACCAACA 960
TCTGTGCCAT CATTTGGCGG ACCTTCACCG TGGCGGCAT CCTGGACTCA TGCATCTTCA 1020
CAGCCTCTGA GGCCTGGAAG AAGATCCAGC TGGCGAAGAT GCATGAGCGC CACACCCAGC 1080
CTAATGGCGG AAGACCTTGG GCATCGCCAG CCTTGCCTCC AGTGGCCCTGT CTCTTTGGC 1140
CCTCATCTG GTCCCAATC TGGCTGTGTC CCAAGGGGTG TGTGGGAAT GGGGGGAAAG 1200
TAGAGGATGG CTCGATGTT TGCAGCTACC TCTTTTCCCC GTGTTTCTT TTAGACAAAT 1260
TACACTGCTT GAAGTTGCAG TTCCCTTTT CCTGGGGAGC CCCAAGAACA GAGTCAGGCA 1320
AGGGGTGGGG AGTCAGGGG AACATCCAG AATGCATATC GATCAGCTCT CAGCCAGGCT 1380
TGACAAATCT CGCAGCCGCC ACTAGGTGGA CACATTAATG ATTTGGTTTC TCCCTTGGC 1440
AGCCACCTG CCCAGAGGC ACCAGACCTG GCTTTTACG TTTGGACCA GGTGCCCCA 1500
AGGTACTCTT TTATACACC GGCACCTTCC ACBAAGATG GTACTTCCA AGCAAGCCCC 1560
TATGATTTGT CACTATAGAT GGAATGTGT GGCATGCACA TGAAGTGAAA TTCTTTATG 1620
CATTTTITTT AAAAAAACA AAAAAACAAC TCTGAGGACA TAGGGGATGT CAGTTTCTTA 1680
TGGAAAGAGC ACCTCTGACC CGTATTCTT ATAATCAAAA TCTGAAGGGA AAAAAATGTT 1740
TTAGTTCTTT CCCACTCTGT TGGGTTCAAC TAGATTAATA GGTGATTTT CAG 1793
  
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Seq ID NO: C214 DNA Sequence
 Nucleic Acid Accession #: NM_002151.1
 Coding sequence: 246..1499

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1 11 21 31 41 51
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AGGCCCAAG CCAAGCCTTC TGCTCCAGG CCGCCCGCTG CTGCGGGGCC ACCATGCTCC 120
TGCCAGGGCC TGGGACACTG CCGACCCCGC GCACTACCTC GAGGCTCCGC CCCACCTGC 180
TGGACCCAGC GGTCCACACC TGCCCCAGGA GGTGAGCCAG GGAATCAITA ACAAGAGGCA 240
GTGACATGGC GCAGAAAGGAG GGTGGCCGGA CTGTGCCATG CTGCTCCAGA CCCAAGGTGG 300
  
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| | | | | | | | |
|----|------------|------------|-------------|------------|------------|-------------|------|
| 5 | CAGCTCTCAE | TGCGGGGACC | CTGCTACTTC | TGACAGCCAT | CGGGGGGGCA | TCCTGGGGCA | 360 |
| | TTGTGGCTGT | TCTCCTCAGG | AGTGACCAGG | AGCCGCTGTA | CCCACTGCAG | GTCCAGCTCTG | 420 |
| | CGGACGCTCG | GCTCATGGTC | TTTGACAAGA | CGGAAGGGAC | GTGGCGGCTG | CTCTGCTCCT | 480 |
| | CGCGCTCCAA | CGCCAGGGTA | GCCGACTCA | GCTGCGAGGA | GATGGGCTTC | CTCAGGGCAC | 540 |
| | TGACCCACTC | CGAGCTGGAC | GTGGGAACGG | CGGGCGCCAA | TGGCAGCTCG | GGCTCTCTCT | 600 |
| | GTGTGGACBA | GGGAGGCTG | CCCCACACCC | AGAGGCTGCT | GGAGGTCATC | TCCGTGTGTG | 660 |
| | ATTGCCCCAG | AGGCGCTTTC | TTGGCCGCCA | TCTGCCAAGA | CTGTGGCCGC | AGGAAGCTGC | 720 |
| | CCGTGGACCG | CATCGTGGGA | GGCCGGGACA | CCAGCTTGCG | CCGCTGGCCG | TGGCAAGTCA | 780 |
| 10 | GCCTTCGCTA | TGATGGAGCA | CACCTCTGTG | GGGATCCCTT | GCTCTCGGGG | GACTGGGTGC | 840 |
| | TGACAGCGCG | CCACTGTCTC | COGGAGCGGA | ACCGGCTCCT | GTCCCGATGG | CGAGTGTTTG | 900 |
| | CGGTGCGCTG | GGCGAGGCTC | TCTCCCAACG | GTCTGCAGCT | GGGGGTGCAG | GCTGTGGTCT | 960 |
| | ALCAGCGGGG | CTATCTTCCC | TTTGGGGACC | CCAACAGCGA | GGAGAACAGC | AACGATATTG | 1020 |
| | CCCTGGTCCA | CCTCTCCAGT | CCCTGCCCCC | TCACAGAATA | CATCCAGCCT | GTGTGCCCTC | 1080 |
| 15 | CAGCTGCGCG | CCAGGCCCTG | GTGGATGGCA | AGATCTGTAC | CGTGACGGGC | TGGGGCAACA | 1140 |
| | CGCAGTACTA | TGGCCAAACG | GCCGGGGTAC | TCCAGGAGGC | TCCAGTCCCC | ATAATCAGCA | 1200 |
| | ATGATGTCTG | CAATGGGCTC | GACTTCTATG | GAAACCCAGT | CAAGGCCAAG | ATGTTCTGTG | 1260 |
| | CTGGCTACCC | CGAGGGTGGC | ATTGATGCCCT | GCCAGGGCGA | CAGCGTGGGT | CCCTTTGTGT | 1320 |
| | GTGAGGACAG | CATCTCTCGG | ACGCCACGTT | GGCGGCTGTG | TGGCATTGTG | AGTTGGGGCA | 1380 |
| 20 | CTGGCTGTGC | CCTGGCCAGG | AAGCCAGGCG | TCTACACCAA | AGTCAGTGAC | TTCCGGGAGT | 1440 |
| | GGATCTTCCA | GGCCATAAAG | ACTCACTCCG | AAGCCAGCGG | CATGGTGACC | CAGCTCTGAC | 1500 |
| | CGGTGGCTTG | TCCCTGGGCA | GCCTCCAGGG | CCCGAGGTGA | TCCCGGTGGT | GGGATCCAGG | 1560 |
| | CTGGGCGGAG | GATGGGAGCT | TTTTCTTCTT | GGGCCCCGTC | CACAGGTCCA | AGGACACCTT | 1620 |
| | CCCTCCAGGG | TCCCTCTCTC | CACAGTGGCG | GGCCCACTCA | GCCCGAGAC | CACCCACCTT | 1680 |
| 25 | CACCCCTCTG | ACCCCATGTT | AAATATTGTT | CTGCTGTCTG | GGATCTCTGT | CTAGGTGCCC | 1740 |
| | CTGATGATGG | GATGCTCTTT | AAATAATAAA | GATGGTTTGG | ATT | | 1783 |

Seq ID NO: C215 DNA Sequence

Nucleic Acid Accession #: AB037745.1

Coding sequence: 25..1744

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| 30 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | ATGGTGGGAC | ACGCTGCCCA | CAACATGGGA | AACGACCGTT | CTCAGTGGGA | TCAACTTCGA | 60 |
| 35 | GTACAGGGGC | ATGACAGGCT | GGGAGGTGGC | TGGTGATCAC | ATTATACACAG | CTGCTGGAGC | 120 |
| | CTCAGACAAAT | GACTTCATGA | TTCTCACTCT | GTTGTGCCCA | GGATTTAGAC | CTCCGCGAGT | 180 |
| | GGTATGTGCA | GACACAGAGA | ATAAAGAGGT | GGCCAGAAATC | ACATTTGTCT | TTGAGACCTC | 240 |
| | CTGTCTCTGT | AATGTGTAGC | TCTACTTCAT | GGTGGGTGTG | AATTTCTAGGA | CCAACACTCC | 300 |
| | TGTGGAGACG | TGGAAAGGTT | CCAAAGGCAA | ACAGTCCCTAT | ACCTACATCA | TTGAGGAGAA | 360 |
| 40 | CACCTACCAAG | AGCTTCACCT | GGGCCCTTCCA | GAGGACCACT | TTTCATGAGG | CAAGCAGGAA | 420 |
| | GTACACCAAT | GAGCTTGGCA | AGATCTACTC | CATCAATGTC | ACCAATGTTA | TGAATGGGCT | 480 |
| | GGCCCTCTAC | TGCCGTCCCT | GTGCCCTTGA | AGCCCTCTGAT | GTGGGCTCCCT | CCGTCACCTC | 540 |
| | TTGTCTCTGT | GGTTACTATA | TTGACCGAGA | TTGAGGAACC | TGCCACTCTCT | GGCCCCCTAA | 600 |
| | CACAATTCTG | AAAGCCCAAC | AGCCTTATGG | TGTCCAGGCC | TGTGTGCCCT | GTGTGCCAGG | 660 |
| 45 | GACCAAGAAC | AACAAGATCC | ACTCTCTGTG | CTACAAATGAT | TGCACCTTCT | CAGCACAAC | 720 |
| | TCCACCAAGG | ACTTTCACCT | ACAACCTTCTC | CGCTTTGGCA | AACACCGTCA | CTCTGTCTGG | 780 |
| | AGGCGCAAGC | TTCACTTCCA | AAGGGTTGAA | ATACTTCCAT | CACCTTACCC | TCAGTCTCTG | 840 |
| | TGGAACCAAG | GGTAGGAAAA | TGCTGTGTGT | CACCGACAAT | GTCACTGACC | TCCGGAATCC | 900 |
| | TGAGGGTGGG | TCAGGGTCTT | CCAAATCTAT | CACAGCCTAC | GTCTGCCAGG | CAGTCACTAT | 960 |
| 50 | CCCCCAGAG | GTGACAGGCT | ACNAGGCCGG | GGTTTCTTCA | CAGCCGTGTC | GGCTTGCTGA | 1020 |
| | TGCACTTATT | GGGGTGACAA | CAGATATGAC | TCTGGATGGA | ATCACCTCCC | CAGCTGAATC | 1080 |
| | TTTCCACCTG | GAGTCCTCTG | GAATACCGGA | CGTGTCTTTC | TTTTATAGGT | CCAATGATGT | 1140 |
| | GACCCAGTCC | TGCAGTCTCT | GGAGATCAAC | CACCATCCGC | GTCAAGTGTCA | GTCCACAGAA | 1200 |
| | AACTGTCCCT | GGAGGTTTGC | TGCTGCCAGG | AACGTGCTCA | GATGGGACCT | GTGATGGCTG | 1260 |
| 55 | CAACTTCCAC | TTCTCTGTGG | AGAGCGCGGC | TGCTTGCCCG | CTCTGCTCAG | TGGCTGACTA | 1320 |
| | CCATGCTATC | GTGACGAGCT | GTGTGGCTGG | GATCCAGAAG | ACTACTTAAG | TGTGGCGAAG | 1380 |
| | ACCCAGCTTA | TGCTCTGTGT | GGATTTCTCT | GCCTGAGCAG | AGAGTCACCA | CTGCAAAAC | 1440 |
| | CATAGATTTC | TGGCTGAAAG | TGGGCATCTC | TGCAGGCACC | TGTACTGCCA | TCTGTCTCAC | 1500 |
| | CGTCTTGACC | TGCTACTTTT | GGAAAAAGAA | TCAAAACTA | GAGTACAGGT | ACTCCAGGCT | 1560 |
| 60 | GGTGTGGAAT | GCTACTCTCA | AGGACTGTGA | CTGCGCAGCA | GCTGACAGCT | GGCCATCTAT | 1620 |
| | GGAGGCGGAG | BATGTAGAGG | AOGACCTCAT | CTTTACAGGC | AAGAAGTCAC | TCTTTGGGAA | 1680 |
| | GATCAAAATCA | TTTACCTCCA | AGCAGCCAGC | TCTCTTCAAC | ATCTCTCTTT | CAGAGGACTC | 1740 |
| | CTGATGGATT | TGACTCAGTG | COGCTGAAGA | CATCTCTAGG | AGGCCAGAC | ATGGACCTGT | 1800 |
| | GAGAGGCACT | GCCTGCCCTCA | CCCTGCTCCT | CACCTTGCTAT | AGCACCTTTG | CAAGCCTGGG | 1860 |
| 65 | GGGATTGGG | TGCCAGCATC | CTGCAACACC | CACCTGCTGA | AATCTCTTCA | TTGTGGCCTT | 1920 |
| | ATCAGATGTT | TGAATTTTCA | ATCTTTTCTT | ATAGAGTACC | CAAAACCTTC | TTTCTGCTTG | 1980 |
| | CCTCAACCTT | GCCAAATATA | CCACACTTTT | GTTTGTAAAT | TATGCCCTTG | CTTGTATCTT | 2040 |
| | GTTCGCCAAA | ATGGGCCATC | CGCCAGAGCC | ATAGCTTCTG | CTGCTCATAA | TTCTTATAGC | 2100 |
| | TTTGGAAATGA | AAATATTTCT | ATCTTCTTAA | GTATAGAAAC | TATTTCTCTCT | GTCTCTTAAC | 2160 |
| 70 | TTAAGGGCAG | AAACAGCTGG | GAGTTTTCCT | CGCATGCCCT | CAGCTCATGA | TCTCTTCAGG | 2220 |
| | AGAGAGGCTG | GGTGGAGGAG | GTGTGGGGGT | TCCCTGGTGG | ATAATCTTCA | TAGCAGCCTG | 2280 |
| | GATCCATTTT | CCTTGGATAA | CCAGCTCAAA | GGGAGTGAAA | ATGGTAGTCT | GAGGGCAAGG | 2340 |
| | GGAGCAAGGC | CTGGGTAAGA | AAAGCCTTGA | AAAGCATAAA | AAGAGGCCGG | GCCGGGTGGC | 2400 |
| | TACGCGCTGT | AATCCAGACA | CTTTGGGAGG | CCGAGGCCGG | CAGATCATGA | GGTCCGGAGA | 2460 |
| 75 | TTGAGACCAT | CCTGGCTAAC | ACGGTGAAGC | CCCGTCTCTA | CTGGAAATAC | AAAAAATTAG | 2520 |
| | CCGGGGCTGG | TGGCGGGTGC | CTGTGGTCCC | AGCTACTCGG | GAGGCTGAGG | CGGGAGAAAT | 2580 |
| | GGTGGGGCTT | GGAGGGCGGA | GCTTGCAGTG | AGCCGAGATC | GCGCCACTGC | ACTCCATCCA | 2640 |
| | GCCTGGGTGA | CAGAGTGAGA | CTCTGCCCTCA | AAAAAAGAAA | AAAAAAGAAA | AAGCAAAAG | 2700 |
| | AGAGGCAACA | AGGAATGTTT | TTGTTTGTGA | GACAGGCTCT | CACCTGTGCA | CCTAGGCTGC | 2760 |
| 80 | AGTGCAGTGG | GGTAATCACT | GTTCAGTGCA | GCCTCAAGCT | CTTGGGCTCA | GGCTATCCTC | 2820 |
| | CCATCTCAGC | CTCTCAGATA | GCTGGGACTA | CGAGTGTGCA | CCACGAGGCT | CACATAATTT | 2880 |
| | TGTGTTTTTT | TGAGACACGG | GGTTTCAACG | TGTTGCCGAG | GCTGGTCTCC | AALCTCTGGG | 2940 |
| | CTCAAGTGAT | CTGTCCGCTT | CGGCTTCCCA | AACCTGCTGG | ATCACAGGCA | TAAGCCACTG | 3000 |
| | CACCTCAGCT | TTTATTTGTT | TTTAAACCCA | CGTAGCTCAT | TGCCTTCTCT | TAAGTAAATG | 3060 |
| | ATAGATATTC | TCACGTAAGC | CAAGGAATAA | AGTTCTATCA | GAAAAATGCC | AAAGCCCTGG | 3120 |

| | | | | | | | |
|----|------------|-------------|------------|------------|-------------|-------------|------|
| 5 | TGGATACATC | CTCCCTATCT | TTTTTTTAAA | CCTTCCACTA | TCACICTATG | ACACTGAAAA | 3180 |
| | GAACCAAGTA | AGCCCCAACC | CCAGATGTTT | CAGCCTTATC | CTCTATTGGG | TTTACCCACA | 3240 |
| | GACATAGCAA | ACCCCTGTAG | TGAGGAAAT | TCCCATCCT | TGAGTGCCCC | CGTCTAGAA | 3300 |
| | GTTTGGGCCA | TATTATGGAA | CAGGGGTCTC | TTATTTGAAA | AGAGCACAA | GAGGCCAAGA | 3360 |
| | TTTTAATGGG | GCACITTAGG | GGATACAGCC | CACAAATGGC | TGGGCTGAG | GTGGCCGTGA | 3420 |
| | TGTCTGCTTC | TAAGCTTAAC | GCATCTGCTC | AGGCACAGAA | TAAACGTCTA | GGCTGGCCAA | 3480 |
| | AAAAGGAAC | GAATCCAGG | CCCATAAGCC | AGCACCAGAA | TCAAACCACT | CTTCAAGGAA | 3540 |
| | GGAGGGCTAG | GAGAGTTTAA | CAAGATTTTC | ACTGGGCCCA | GCATGGTGGC | TCACACCTGT | 3600 |
| 10 | AATCCCAAGG | CAGAATGGTG | GCTTGAGCTC | AGGAGTTCAA | GAOCAGCCCTG | GGCAACACAG | 3660 |
| | TGAGACCTTG | TCTCTAAAAA | ATTTAAAAAT | AAACAAGGTG | TTACCAACAC | TGGGATACCT | 3720 |
| | CTCACTATTA | AGCCCTATAT | TTTCTCTTTT | TTTCATTCTC | AATTGCTTTG | TGTGATAAAA | 3780 |
| | AACTAAAGAG | ACTTCTGGTC | CAATTTCTGG | CAACATCCCT | TCTGAAGGCT | GAGTAGAGTG | 3840 |
| | GGTGTCTTCT | ATGCCCATTT | TCCCAATTTT | TACACAACT | ATTATCAATG | AACCTTTAAG | 3900 |
| 15 | TACCTAGAAT | GGGTAAAAAC | AGAGCAAGAC | TTTAAATTAC | CTTCTCTTTT | CTTCTACTGG | 3960 |
| | CAGTTCTGCT | TCCATCAGTA | TCAGGCTAGG | GTGACCTTCC | CTTGGTCAAG | CCCCAAATTGC | 4020 |
| | CCATGATTTC | TGCCGTGACC | CTTCTCCAG | TGACCATTTG | GTGACCCAGT | GGTAGATATA | 4080 |
| | GAAGAGGGAT | GGCATTGTGA | AGTGACTAGT | CTGCCACAAA | ATGCTCATCT | GATTAGCCAC | 4140 |
| | TGCTGCCCTG | GCAATGGCTT | TGTAAGAGTC | AATGAGAACT | AGAGCCAGGC | TGTGGTCCCT | 4200 |
| 20 | GGCCATCAAC | AGTGTGGGTG | ACGGCAGGGA | GTCCCTTTGG | TTTAAATAAT | CCAGTTTTC | 4260 |
| | TTTGGGTATC | CAAAATCTCC | CCTCCTTTTG | TAGGAGTCAG | GCTCTCAGAA | CCGTGTCCA | 4320 |
| | TGTTGGAATG | TGCCCCAGTG | TGGATGCAGA | TACGAGCTC | CTGAGCTCCA | GGCTAAAGTC | 4380 |
| | TTCTGTAGCC | TACAGCAATC | TTGGGCACCT | GCTGTCTCAC | TGAATAGCTT | TCCTTTGTGA | 4440 |
| | CAAGGCCAC | ACAGAGCCCT | TAGACTATTC | CGGAACAGT | AGGAATAAT | ACATATGTCT | 4500 |
| 25 | TTGACTTCTT | TATTTCTGACT | CCACTGATTT | TAGCCATAAT | ALTTTAAGGA | GCTACTTTT | 4560 |
| | ACTACCCCTT | ACCGTGCTGA | CTTCTGCTAG | TCTGCCCTGT | GACCTGTCTG | GAACCTCTGA | 4620 |
| | GTTACGCTAC | TGGGCTCAC | TGTTGCTCCC | CTAGCAAGTT | AGGCATGTCA | TATATTTTTA | 4680 |
| | ACAGCTTTAT | TGAGATATAA | TTACATATTT | ATACAAATCA | CCTTTAAAC | ATACGATTCA | 4740 |
| | ATGGTTTTC | GCAATCTCAC | AGAGTTGTCC | GCCCACTTGA | GAGCAACAC | ATGTTCAAT | 4800 |
| 30 | TTCTTTTCTT | TTTTTTTTTT | GAGACAGAT | CAGCTTTGTC | GCCCAGGCTG | GAGTGCAGTG | 4860 |
| | CCATGATCTT | GGCTCACTGC | AGCCTCCCCA | TCCCTGGGTC | AAGTGATCCT | TCTGCTTCAG | 4920 |
| | CCTCCCACT | AGCTGGGATT | ACAGGCATGC | GCCACCAAGC | CTAGCTAAT | TTTGTGTTTT | 4980 |
| | TAGTAGAGAT | GGGGTTTAC | CGTGTGGGCC | AGGCTGTCT | CAAACTCCCT | GACTCAAGTG | 5040 |
| | ATCCACCCAC | CTGGGCTCC | CAAGTGCTG | GGATTGACG | TGTGAGCCAC | CGTGCTGGC | 5100 |
| 35 | CTACGTGCTC | AATTTTCTAT | GAACAAAGGC | TTTAGTCTTT | GACCCAGGCT | TAAAGTGGTC | 5160 |
| | TGTCCAGGCT | GTGTTGGTGA | GAGGAGTAT | GATAAAATGT | TTAAATCTCA | TTGGTTTACC | 5220 |
| | TTGAGTCTCT | GAACAGCCAG | TAACTGTCT | GCTATAGTCA | TCATCTGTAT | TGGCTGGGA | 5280 |
| | ATACAAATGA | AGATTGTGCT | GTATTCAAGC | AGTAGGTTT | TTGCTTTTGT | TTTGTTTTAA | 5340 |
| | GTGCAACAA | AACTTTTCTT | TGTCGACTA | CATTAAAGAT | AAGACTGACT | ATATTTATAC | 5400 |
| 40 | AACGAAACT | TTGTAAATGA | TTTTTTTCTG | TTTGTGAAAT | CGAATTTTCT | TTCTACAGGG | 5460 |
| | CTGGTGGAT | TTCTTTTCTA | CCCTGTAATC | CAGCGTTAA | TAGTTTGTGA | GAAGATGGGT | 5520 |
| | TATTGATGT | CACCTTTTTT | TTTTTGTAAA | ATAAAAACAT | ACCTTAC | | 5567 |

Seq ID NO: C216 DNA Sequence
Nucleic Acid Accession #: NM_004864.1
Coding sequence: 26-952

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|----|------------|------------|------------|-------------|------------|------------|------|
| 45 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | OGGAACGAGG | GCAACCTGCA | CAGCCATGCC | CGGGCAAGAA | CTCAGGACGG | TGAATGGCTC | 60 |
| 50 | TCAGATGCTC | CTGGTGTGTC | TGGTCTCTTC | GTGGCTCCCG | CATGGGGGCG | CCCTGTCTCT | 120 |
| | GGCCGAGGCG | AGCCGCBCAA | GTTCOCGCG | ACCCCTCAGAG | TTGCACTCCG | AAGACTCCAG | 180 |
| | ATTCCGAGAG | TTGGCGAAAC | GCTACGAGGA | CCCTCTAAC | AGGCTGCGGG | CCAAACGAGG | 240 |
| | CTGGGAAGAT | TGGAACACCG | ACCTGTCTCC | GGCCCTGCA | GTCCGATAC | TCACGCCAGA | 300 |
| 55 | AGTGCGGCTG | GGATCCGCGG | GCCACCTGCA | CCTGCGTATC | TCTCGGGCGG | CCCTTCCCGA | 360 |
| | GGGGCTCCCG | GAGGCTCTCC | GCTTTCACCG | GGCTCTGTTT | CGGCTGTCCC | CGACGGCGTC | 420 |
| | AAGGTGTGTC | GACGTGACAC | GACCGCTCGG | GGCTCAGCTC | AGCCTTGCAG | GACCCCAAGC | 480 |
| | GCCCGCGCTC | CACCTGCGAC | TGTGCGCGCC | GCGCTGCGAG | TGCGAACCA | TGCTGGCAGA | 540 |
| | ATCTGTGTC | GCAAGCGCCC | AGCTGGAGTT | GCACTTGGCG | CCGCAAGCCG | CCAGGGGGCG | 600 |
| 60 | CCGCAAGAGG | CGTGCGCGCA | ACGGGGACBA | CTGTCCGCTC | GGGCCCGGGC | GTGCTGCGCG | 660 |
| | TCTGCACAGG | GTCCGCGCGT | CGCTGGAAGA | CCTGGGCTGG | GCCGATTGGG | TGCTGTGCGC | 720 |
| | ACGGGAGGTC | CAAGTGACCA | TGTGCTCGG | CGCGTCCCG | AGCCAGTTCC | GGGCGGCAGG | 780 |
| | CATGCAAGCG | CAGATCAAGA | CGAGCTGCA | CGGCTGAAG | CCCGACACGG | AGCCAGCGCC | 840 |
| | CTGCTGCTG | CCCGCCAGCT | ACAATCCCAT | GGTGTCTATT | CAGAGACCG | ACACCGGGGT | 900 |
| 65 | GTGCTGCTAG | ACCTATGATG | ACTTGTTAGC | CAGAGACTGC | CACTGTCTAT | GAGCGTCTCT | 960 |
| | GGTCTCTCCA | CTGTGCACT | GCGCGGGGGA | GGCGAAGTCA | GTGTGCTGCT | CTGTGTGAAT | 1020 |
| | GGGCTCAAGG | TTCTGTGAGC | ACCCGATTCC | TGCCCAACCA | GCTGTATTTA | TATAAGTCTG | 1080 |
| | TTATTATTAT | TTAATTATT | GGGGTGACCT | TCTTGGGGAC | TGGGGGGCTG | GTCTGATGGA | 1140 |
| | ACTGTGTATT | TATTTAAAC | TCTGTGTATA | AAAAAAGC | TGCTGAACT | GTAAAAAA | 1200 |
| 70 | AAAA | | | | | | 1204 |

Seq ID NO: C432 DNA Sequence
Nucleic Acid Accession #: NM_052858.1
Coding sequence: 54..1259

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|----|------------|-------------|-------------|------------|------------|------------|-----|
| 75 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | GGCAGGAGGT | GTTCGCCCTCA | GGTGGCTCCC | GGGCGCGGAC | ACGGAAACCG | GCCATGGAAG | 60 |
| | ATCCGTGGGG | GGCTGCGGAG | CCCGGGGCTC | GGCGGAGAGA | GCGGGACCCG | GGACGGGCGC | 120 |
| 80 | CCACCCAGAG | CCAGAGCGCG | ACCCACGATC | GACCTCGGGA | CCGACCCGGG | GAACCGCGCA | 180 |
| | GGAGCGAAG | CAGCGACCGG | AAACCGGCBAA | GGGACGGGGA | CCGGGACCCG | AAGAGAGACC | 240 |
| | AGGAGAGGGA | CGGGAACCCG | GGACCGGAAC | GGGACCGGGA | GAGGGAGAGA | GAGAGGGGAA | 300 |
| | GAGACCGGGA | CCGAGGCCCC | CGCGGGGACA | CACACAGGGA | CGCGGGCCCT | CGCGCAGGTG | 360 |
| | AACACGGAGT | TTGGGAAAAA | CGCGCCAA | GCGGACGCGG | GAGCGGAGCG | CGGGGACCTA | 420 |
| | CCTGGGACGC | AGCCGCGCCT | CCTGGGCCCC | CGCCCTGGGA | AGCCCGGAG | CGCGCGCAGC | 480 |

| | | | | | | | |
|----|--|-------------|-------------|-------------|-------------|------------|------|
| 5 | CGCAGAGGAA | GGGAGACCCC | GGGCGCCGCA | GACCCGAAAG | TGAACCCCTT | TOGGAGAGAT | 540 |
| | ATCTGCCCTC | GACCCCCAGG | CCTGGACGAG | AGGAGGTGGA | ATATTACCAG | TCAGAGGCGG | 600 |
| | AGGAGCTCCT | GGAAATGCCAC | AAATGCAAAAT | ACTTGTGCAC | TGGGAGAGCC | TGCTGCCAAA | 660 |
| | TGCTGGAGGT | TCTCTGAAAC | TTGCTGATCC | TGGCCTGCAG | CTCTGTGTCT | TACAGTTCCA | 720 |
| | CAGGGGGCTA | CACCGGCATC | ACCAGCTTGG | GGGGCATTTA | CTACTATCAG | TTCCGAGGGG | 780 |
| 10 | CTTACAGTGG | CTTTGATGGT | GCTGACGGGG | AGAGGGCCCA | GCAACTGGAT | GTCCAGTTCT | 840 |
| | ACCAGCTAAA | GCTGCCCATG | GTCACCTGTG | CAATGCGCTG | TAGTGGAGCC | CTCACAGCCC | 900 |
| | TCTGTGCTCT | CTTCTGTGCC | ATGGGTGTCC | TGCGGGTCCC | GTGGCATTGT | CCACTGTGTG | 960 |
| | TGTTGACCGA | AGGCTTGTGG | GACATGCTCA | TCGCGGGGGG | GTACATCCCG | GCCTGTACT | 1020 |
| | TCTACTTCCA | CTACCTCTCT | GCTGCCATG | GCTCTCCTGT | GTGTAAAGAG | AGGCAGGCGC | 1080 |
| 15 | TGTACCAAG | CAAGGCTTAC | AGCGGTTTGG | GCTGCAGTTT | CCAOGGAGCA | GATATAGGAG | 1140 |
| | CTGGAATCTT | TGCTGCCCTG | GGCATTGTGG | TCCTTGCCTT | GGGGGCGGTC | CTGGCCATAA | 1200 |
| | AGGGCTACCG | AAAAGTTAGG | AAAGTAAAG | AGAAGCCAGC | AGAAATGTIT | GAATTTTAA | 1260 |
| | GGTTTCTAAA | ACGCTCTGAC | AGATGCAAGT | GGTGGTGGAA | GGTAGTCTGA | GCCACTGCCT | 1320 |
| | TTCCCAAGAA | TCCCTTGTGG | TGGAAGTTTC | CAATGCTGGA | AAAGCAGCGA | GCCAGGCTTG | 1380 |
| 20 | GTGTGGTGG | CGGAGCTCCC | AGTCGCATGG | AGCGGTGTTT | ATGGATGCAA | CAGACCCCTG | 1440 |
| | CTTCTGGAGT | CCTCTGTGAG | TGAGGGACCA | ATCAAAATTA | TTTTTCAAAA | AGCAAAAAAA | 1500 |
| | TGGCGGGCCT | CGCGGCTCA | CACCTGTAA | CCAGCAGCTT | TGGGAGGCTG | AGGTGGGTGG | 1560 |
| | ATCACTTGA | GAGGAGGCT | CGAGACGAG | TTGGCCAAAC | TGGTGAAGCC | CCCTCTCTAC | 1620 |
| | TAAATACAA | AAAATTTAGC | CAGGCGTGGT | GGCGGGGCGC | TGTAAATCCA | GCTACTTGGG | 1680 |
| 25 | AGGCTGAGG | AGGAAATCG | CTTGAATCTG | GGAGGCGGAG | ATTGCACTGA | GCGAGATCC | 1740 |
| | CGCCACTGCA | CTCCAGCCCA | GGTGACAGAG | CGAGACTCCA | TCTCAAAAAA | AAAAAAAATA | 1800 |
| | Seq ID NO: C434 DNA Sequence | | | | | | |
| | Nucleic Acid Accession #: Bos sequence | | | | | | |
| | Coding sequence: 261..2861 | | | | | | |
| 30 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | GAGCTAGCGC | TCAAGCAGAG | CCAGCGCGGG | TGCTATCGGA | CAGAGCCTGG | CGAGCGCAAG | 60 |
| | CGCGCGCGGG | AGCCGCGGGG | GCCTGAGCGG | GCCAGGGTCT | GAACCCAGAT | TTCCAGACT | 120 |
| | AGCTACCACT | CGCTTGCCTC | ACGCCCCGGG | AGCTCGCGGC | GCCTGGGGGT | CAGCGACCA | 180 |
| | ACGTCGCGGG | CGCTGCGGCT | CCTGGCCGCG | GAGGCGGTGAC | ACTGTCTCGG | CTACAGACCC | 240 |
| 35 | AGAGGGAGCA | CACCTGCCAGG | ATGGGAGCTG | CTGGGAGGCA | GGACTTCCCT | TTCAAGGCCA | 300 |
| | TGCTGACCAT | CAGCTGGCTC | ACTCTGACCT | GCTTCCCTGG | GGCCACATCC | ACAGTGGCTG | 360 |
| | CTGGGTGCCC | TGACCAAGAG | CCTGAGTTGC | AACCTGGGAA | CCCTGGCCAT | GAACCAAGAC | 420 |
| | ACCATGTGCA | TATGGGCCAG | GGCAAGACAC | TGCTGTCTAC | CTCTTCTGCC | ACGGTCTATT | 480 |
| | CCATGCCATC | CTCAGAGGGA | GGCAAGCTGG | TCATTAAAGA | CCACGACGAG | CGGATTGTIT | 540 |
| 40 | TGCGAAACCG | GCACATCCCT | ATTGACAAAG | GAGGAGAGCT | GCATGCTGGG | AGTGCCTCTT | 600 |
| | GCCCTTTCCA | GGGCAATTTT | ACCATCATTT | TGTATGGAAG | GGCTGATGAA | GGTATTGAGC | 660 |
| | CGGATCCCTT | CTATGCTCTG | AAGTACATTG | GGTTTGTGTA | AGGAGGCGCT | CTTGAGTTGC | 720 |
| | ATGGACAGAA | AAAGCTCTCC | TGGACATTTT | TGAACAAAGC | CCCTTCAACCA | GGTGGCATGG | 780 |
| | CAGAGGAGAG | CTATTTTTTT | GAAGGAGGCT | GGGGCCACCG | TGGAGTTATT | GTTCATGTCA | 840 |
| 45 | TOGACCCGCA | ATCAGGACCA | GTCCATCCAT | CTGACCGGTT | TGACACCTAT | AGATCCAAGA | 900 |
| | AAGAGAGTGA | ACGCTGGGTC | CAGTATTGGA | ACGCGGTGCC | CGATGGCAGG | ATCCTTTCTG | 960 |
| | TTGCAAGTGA | TGATGAGGTT | TCTGAAATTC | TGGATGACAT | GGCCAGGAAG | GCGATGACCA | 1020 |
| | AATTGGGAGG | CAAACTCTTC | CTGCACCTTG | GATTTAGACA | CCCTTGGAGT | TTTCTAACTG | 1080 |
| | TGAAGAGAAA | TCCATCATCT | TCAGTGGGAG | ACCATATTGA | ATATCATGGA | CATCGAGGCT | 1140 |
| 50 | CTGCTGCTGC | CCGCTGATTC | AAATTGTTCC | AGACAGAGCA | TGGGGAATAT | TTCAATGTTT | 1200 |
| | CTTTGTCCAG | TGAGTGGGTT | CAAGACGTGG | AGTGGAGGGA | GTGGTTCGAT | CATGATAAAG | 1260 |
| | TATCTCAGAG | TAAAGGTGGG | GAGAAAATTT | CAGACCTCTG | GAAAGCTCAC | CCAGGAAAAA | 1320 |
| | TATGCAATCG | TCCATTGAT | ATACAGGCCA | CTACATGGA | TGGAGTTAAC | CTCAGCACCG | 1380 |
| | AGGTTGTCTA | CAAAAAGGC | CAGGATTATA | GGTTTGTCTG | CTAGACCGGG | GGCAGAGCCT | 1440 |
| 55 | GCOCGAGCTA | CCGTGATACG | TTCTCTGTGG | GGAAGCCTGT | GAGGCCCAAA | CTCAGAGTCA | 1500 |
| | CCATGACAC | CATGTGAAC | AGCACCATT | TGAACCTTGA | GGATAATGTA | CAGTCATGGA | 1560 |
| | AACCTGAGAA | TCCCTGTGTC | ATGCGCAGTA | CTGATTACTC | CATGTACCAG | GCAGAGAGAT | 1620 |
| | TCCAGGTGCT | TCCCTGCGAG | TCTTGGCGCC | CCAACCCAGT | CAAGTGGGCA | GGGAAACCTA | 1680 |
| | TGTACCTGCA | CATCGGGGAG | GAGATAGAGG | GGCTGGACAT | GGGGGCGGAG | GTGGGCTTTC | 1740 |
| 60 | TGAGCGCGAA | CATCTTAGTG | ATGGGGGAGA | TGGAGGACAA | ATGCTACCCC | TACAGAAACC | 1800 |
| | ACATCTGCAA | TTTCTTTGAC | TTGATACTCT | TTGGGGGCCA | CATCAAGTTT | GCTCTGGGAT | 1860 |
| | TTAAGGCAG | ACACTTGGAG | GGCACGAGG | TGAAGCATAT | GGGACAGCAT | CTGGTGGGTC | 1920 |
| | AGTACCCGAT | TCACCTCCAC | CTGGCCGGTG | ATGTAGACGA | AAGGGGAGGT | TATGACCTAC | 1980 |
| | CCACATACAT | CAGGAGCCTC | TCCATCCATC | ATACATTCTC | TGCTGGGCTC | ACAGTCCATG | 2040 |
| 65 | GCTCCATGAG | CTTGTGTATC | AAGGAGCTTG | TGGGCTATAA | CTCTTTGGGC | CACCTGCTCT | 2100 |
| | TCACGGAAGA | TGGGCGGGAG | GAAAGCAACA | CTTTTGAACA | CTGTCTTGCC | CTCCTTGTCA | 2160 |
| | AGTCTGGAAC | CCTCTCCTCC | TGGGACCGTG | ACAGCAAGAT | GTGCAAGATG | ATCACAGAGG | 2220 |
| | ACTCTACTCC | AGGATACATC | CCCAAGCCCA | GGCAAGACTG | CAATGCTGTG | TCCACCTTCT | 2280 |
| | GGATGGCCAA | TCCCAACAAC | AACTCATCA | ACTGTGCGGC | TGCAAGATCT | GAGGAAACTG | 2340 |
| 70 | GATTTTGTGT | TATTTTTCAC | CAGTACCAA | CGGGCCCTTC | CGTGGGAATG | TACTCCCCAG | 2400 |
| | GTTATTTCAG | GCACATTCCA | CTGGGAAAT | TCTATAACAA | CCGAGCAGAT | TCCAACCTAC | 2460 |
| | GGGCTGGCAT | GATCATAGAG | AACGGAGTCA | AAACCAACGA | GGCTCTGCCC | AAGGACAAAG | 2520 |
| | GGCGGTTCTT | CTCAATCATC | TCTGCCAGAT | ACAGCCCTCA | CCAGGAGGCC | GACCCCTGTA | 2580 |
| | AGCCCGGGGA | GCGGGCCATC | ATCAGACACT | TCATTGCCCA | CAAGAACCCAG | GACCAAGGGG | 2640 |
| 75 | CCTGAGCTGC | GCGGGGGGAT | GTGTGGCTGG | ACAGCTGCA | TTTCAAGAGG | GAGGCTCAGG | 2700 |
| | AAGGCTTCTT | GCTTACAGGA | ATGAAGGCTG | GGGGCATTTT | GCTGGGGGGA | GATGAGGCGG | 2760 |
| | CCTCTGGAAT | GGTTCAGGGA | TTCAAGCCTC | CCTGGCGCTG | CCTGCTGAAG | CTGGTGAATA | 2820 |
| | CGGGGTGGCC | CTTTGCTCAC | GTCTCTCTGG | CCCACTCATG | ATGGAGAAAT | GTGGTCAGAG | 2880 |
| | GGGAGCAATG | GGCTTTGCTG | CTTATGAGCA | CAGAGGAATT | CAGTCCCCAG | GCAAGCCTGC | 2940 |
| 80 | CTCTGACTCC | AAGAGGGTGA | AGTCCACAGA | AGTGAATCTC | TGGCTTAGGG | CCTCATTTGC | 3000 |
| | TCTTCAATCA | GGAATCTGAG | CACAGGGGGC | CTCCAGGAGA | CCCTAGATGT | GCTCGTACTC | 3060 |
| | CTCGGGCTTG | GATATTGAGA | GCTGGAAATA | TAGAAATAT | CTAGCCCAAA | GCCTTCATT | 3120 |
| | TAAACAGATG | GGAAAGTGA | CCGCCAAGAT | GGGAAAGAAC | CACACAGCTA | AGGAGGGGCC | 3180 |
| | TGGGGAGGCC | CACCTAGGCC | CTTGCTTGCA | CACCAATTTG | CCTCAACCA | CGGCCCCAGA | 3240 |
| | GTGCCAGGCG | ACTCCTGAGG | TAGCTTCTGG | AAATGGGGAC | AAGTCCCTCT | GAAGGAAAGG | 3300 |

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|-------------|------------|-------------|------------|------------|-------------|------|
| AAATGACTAG | AGTAGAATGA | CAGCTAGCAG | ATCTCTTCCC | TCCTGCTCCC | AGCGCACACA | 3360 |
| AACCGCGCCT | CCOCTTGGG | TTGGCGGTCC | CTGTGGCCTT | CACCTTGTTC | ACTACCTGTC | 3420 |
| AGCCGAGCCT | GGGTGACAC | TAGCTGCAAC | TCCCATTGG | TGCTACCTGG | CTCTCTGTGC | 3480 |
| TCCTGAGCTC | TACAGGTGAG | GCCGAGCAGA | GGGAGTAGGG | CTGCCCATGT | TTCTGGTGAG | 3540 |
| CCAAATTTGGC | TGATCTTGGG | TGTCTGAACA | GCTATTGGGT | CCACCCCACT | CCCTTTTCAGC | 3600 |
| TGCTGCTTAA | TGCCCTGCTC | TCTCCCCTGGC | CCACCTTATA | GAGAGCCCAA | AGAGCTCCTG | 3660 |
| TAAAGAGGAG | AACTCTATCT | GTGGTTTATA | ATCTTGCAAG | AGGCACCAGA | GTCTCCCTGG | 3720 |
| GTCTGTGAT | GAATACATT | TATCCCCTTT | CCTGCCCCAA | CCACAACTC | TTTCTTCAA | 3780 |
| AGAGGGCCTG | CCTGGCTCCC | TCCACCCAAC | TGCACCCATG | AGACTCGGTC | CAAGAGTCCA | 3840 |
| TTCCCCAGGT | GGGAGCCAA | TGTACGGGAG | GTCTTTCCCA | CCAAACATCT | TTCACTGCT | 3900 |
| GGGAGGTGAC | CATAGGCTC | TGCTTTTAAA | GATATGGCTG | CTTCAAAGGC | CAGAGTCACA | 3960 |
| GGAGGAGCTT | CTTCCAGGGA | GATTAGTGGT | GATGGAGAGG | AGAGTTAAAA | TGACCTCATG | 4020 |
| TCCTTCTTGT | CCACGCTTTT | GTGAGTITT | CACTCTTCTA | ATGCAAGGGT | CTCACACTGT | 4080 |
| GAACCACTTA | GGATGTGATC | ACTTTCAGGT | GGCCAGGAAT | GTGAATGTC | TTTGGCTCAG | 4140 |
| TTTCTTTTAA | AAAGATATCT | ATTTGAAAGT | TCTCAGAGTT | GTACATATGT | TTCACTGATC | 4200 |
| AGGATCTGAT | CATAGAAAGT | TCTTTCTTAA | ACCAATCAAC | AAGAGCCAA | ATCTAGGCAT | 4260 |
| TTTCTTGTGA | GCACAAATTT | TCTTATTGCT | TAGAAAATTG | TCTTCTTGT | TATTTCTGTT | 4320 |
| TGTAAGACTT | AAGTGAOTTA | GCTCTTTAAG | GAAAGCAACG | CTCCTCTGAA | ATGCTTGTCT | 4380 |
| TTTTTCTGTT | GGCGAAATAT | TCGGTCTTCT | TTCCGGAGTT | AGATGTATAG | AGTGTATTGA | 4440 |
| TGTAACACTT | TCTTGTAGGC | ATCACCATGA | ACAAGATAT | ATTTCTTATT | TATTTATTAT | 4500 |
| ATGTGCACTT | CATAGAACTC | CTGTACAGAG | AATAAGAAAT | TGCTTAAAT | GTCAATGATT | 4560 |
| GAGATGTCTT | TTCATTTGCT | TGAAGGGGT | GTACCTAGAG | CCAAGGAAT | TGGCTCTGGT | 4620 |
| TGGAAAAAT | TTTCTGTGTA | TTATAGTAAA | CATACAAAGG | ATGTCAAAAA | AAAAAAAATA | 4680 |
| AAAAAAAATA | AAAAAAAATA | AA | | | | 4702 |

Seq ID NO: C217 Protein Sequence
Protein Accession #: NP_005805.1

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|------------|------------|------------|------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MVGKMPVLM | TLCAVRVTD | ATSVETPDV | LNASQKSVT | LPCTYHTST | SREGLIQWDK | 60 |
| LLLTHTERVV | WPFNSKNYI | HGELYKNRV | ISMNAEQSDA | SITIDQLTNA | DNGTYECSVS | 120 |
| LMSDLEGNWK | SRVRLVLP | PSKPECCIEG | ETIIQNNIQL | TCQSKESPT | PQYSWKRYNI | 180 |
| LNQEQPLAQF | ASGQPFVLKN | ISTDTSGYYI | CTSSNEEGTQ | PCNITVAVRS | PSMNVALYVG | 240 |
| LAUVGVVALL | IIGIIYCC | CRGKDDNTED | KEDARENREA | YEPPEQLRE | LSREREREDD | 300 |
| YRQEQRSTG | RESPDHLDQ | | | | | 319 |

Seq ID NO: C218 Protein Sequence
Protein Accession #: Bos sequence

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|------------|------------|------------|------------|------------|------------|------|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MGERTPESPL | HAVQLRWGPR | RRPPLPLLL | LLLPFFVRG | GFNLDAEAPA | VLSGPPGSFF | 60 |
| GSFVRYFRG | TGVSVLVGA | PKANTSQPGV | LQGGAVYLC | WGASPTQCTP | IEFDSKBSRL | 120 |
| LESSLSSEEG | BEPEYKSLQ | WFGATVRAHG | SSILACAPLY | SWRTEKEELS | DPVGTCTYLS | 180 |
| DNFTRLLEYA | PCRSDFSWAA | GGYCCQGGF | AEFTKTGRVV | LGGPGSYFWQ | GQILSATQEQ | 240 |
| IABSYYPEYL | INLVQGLQLT | RQASSIYDD | YLGSVAVGE | FSGDDTDFV | AGVFKGNLTY | 300 |
| GKVTILNGSD | IRSLYNFSGE | QNASYFGYAV | AATDVNGDGL | DDLIVGAPLL | MORTPDGRPQ | 360 |
| EVGRVYVYLQ | HPAGIEPTPT | LTLTGHDFFG | RFGSSLTPLG | DLDQDGYNDV | AIGAPFGGET | 420 |
| QQGVVVFVPG | PGFGLGSKPS | QVLQPLWAAS | HTEDFFGSAL | RGRDLGNG | YFDLIVGSPG | 480 |
| VDAVYVRGR | PIVSASASLT | IFPAMPWPER | RSCSLEGNFV | ACINLSFCLN | ASGKHVADSI | 540 |
| GFTVELQLDW | QKQGGVRELA | LFLASRQATL | TQTLILONGA | REDCREMKTY | LRNESBFEDX | 600 |
| LSPIRIALNF | SLDPOAFVDS | HGLRPAHYQ | SKSRIEDKAQ | ILLDCGEDNI | CVPDLQLEVF | 660 |
| GEQNHVYLDG | KNALNLTEHA | QNVGEGGAYE | AEKRVTAPEE | AEYSGLVRHP | GNFSSLSQDY | 720 |
| FAVNQSRILV | COLGNPMKAG | ASLWGGLRFT | VPHLRDTKKT | IQDFQILSK | NLNNQSPDVV | 780 |
| SFRLSVEAQA | QVTLNGVSEK | EAULFFVSDW | HPRDQPKKEE | DLGPAVHEVY | ELINQGPSSI | 840 |
| SQGVLELSCP | QALBQQLLY | VTRVTGLNCT | TNHPINPKGL | ELDPEGSLHE | QXKREAPSR | 900 |
| SASSGPQYLK | CEAECFLRL | CELGPLHQBE | QSBLQLFRV | NAKTLQREH | QPFSLQCEAV | 960 |
| YKALKMPYRI | LPRQLFPKER | QVATAVQMTK | ASGSYGVPLM | IIILAILFGL | ELLGLLYIIL | 1020 |
| YKLGFFKRL | PYGTAMEKAQ | LKPPATSDA | | | | 1049 |

Seq ID NO: C219 Protein Sequence
Protein Accession #: NP_002412.1

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|-------------|------------|------------|-------------|-------------|-------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MHSFPLLLL | LFWGVVSHSF | PATLETQEQD | VDLVQKYLEK | YYNLKNDGRQ | VEKRRNSGPFV | 60 |
| VEKLRQMQEF | FGKLVTKKFD | AETLKVMKQP | RCGVEDVAQF | VLTEGNPRWE | QTHLYTYRIEN | 120 |
| YTPDLPRADV | DEAIEKAFQL | NSNVTPLTFT | KVSEGGQADIM | ISFVRGDHED | NSPFDGPGGN | 180 |
| LAHAFQPGPG | IGGDAHFDED | ERWTNNFREY | NLHRVAAREL | GHSGLGSHST | DIGALMYPSTY | 240 |
| TFSGDVQLAQ | DDLDGICAIY | GRSQNPVQPI | GPQTPKACDS | KLTFDAITTI | EGEVMFPKDR | 300 |
| FYMRNTNFFYP | EVELNFISVF | WPQLNGLA | AYEFADEDEV | REFFKGNKYWA | VQGNVNLHGY | 360 |
| PKDYSSGEGF | PRTVKHIDAA | LSEENTGKTY | FFVANKYWRY | DEYKRSMDPG | YFKMIAHDFP | 420 |
| GIGHKVDADF | MKDGFFYFFH | GTRQYKFDPK | TKRILTLQKA | NSWFNCRKN | | 469 |

Seq ID NO: C220 Protein Sequence
Protein Accession #: Bos sequence

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|------------|------------|------------|-------------|------------|-------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MHSFPLLLL | LFWGVVSHSF | PATLETQEQD | VDLVQKYLEK | YYNLKNDGRQ | VEKRRNSGPFV | 60 |
| VEKLRQMQEF | FGKLVTKKFD | AETLKVMKQP | RCGVEDVAQF | VLTEGNPRWE | QTHLYTYRIEN | 120 |
| YTPDLPRADV | DEAIEKAFQL | NSNVTPLTFT | KVSEGGQADIM | ISFVRGDHED | NSPFDGPGGN | 180 |
| LAHAFQPGPG | IGGDAHFDED | ERWTNNFREY | NLHRVAAREL | GHSGLGSHST | DIGALMYPSTY | 240 |

TFSGDVQLAQ DDIDIGIAIY GRSONPVQPI GPQTPKACDS KLTFDAITTI RGEVMFFKDR 300
 FYMRTNPPYP EVELNFISVF WPQLFNGLEA AYEFADRDEV RFFKGNKYWA VQGQNVLEGY 360
 PKDIYSSPGF PRTVKHIDAA LSEENTGKTY FFFVANKYWRV DEYKRSMDPG YPKMLAHDPF 420
 GIGHKVDVAF MDGGEFFFEH GTRQYKFDPK TKRILTLQKA NSWFNCRKN 469

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Seq ID NO: C221 Protein Sequence
 Protein Accession #: NP_055146.1

10 1 11 21 31 41 51
 MVRKFPVSTI SRGGYQLQNV NGRLPSELGNK EPPGQEKVQL KRKVTLLRGV SIIIGTIIGA 60
 GIFISPKGVL QNTGSVGMSL TIWTVCGVLS LFGALSYAEL GTTIKKSGGH YTYILEVFGP 120
 LPAPVRVWVE LLIRPAPATA VIBLAFGRYI LEPFFIQCEI PELAIKLITA VGITVVMVLN 180
 SMSEVMSARI QIFLTFCKLT AILIIIVPGV MQLIKGQTON FKDAFSGRDS SITRLPLAFY 240
 15 YGMAYAGWF YLNFVTBEVE NPEKTIPLAI CISMATITGV YVLTNVAYFT TINAEHLLS 300
 NAVAVTFSEI LGNFSLAIVP IFVALSCFSG MNGGVFAVSR LFYVASRSGH LPEILSMIRV 360
 RKHTPLPAVI VLHPLTMIML FSGDLDSELN FLSPARWLF GLAVASLIYL RYKCFDMHRP 420
 FKVPFLFIPAL FSFTCLFMVA LSLYSDFPST GIGFVITLIG VPAYYDFIIV DKPRFRFRIM 480
 20 SEKITRTLQI LLEVVPESDK L 501

Seq ID NO: C222 Protein Sequence
 Protein Accession #: NP_003237.1

25 1 11 21 31 41 51
 MGLAWLGLVL FLMHVCGTNR IPESGGDSNV FDIPELTGAA RKSGSRRLVK GPDRSSPAFR 60
 IEDANLIPPV PDDKQQLVD AVRAEKGFLL LASLRQMKKT RGTLLALBRK DHSQGVFSVV 120
 SNGKAGTLDL SLTVQKQKQV VSVBEALLAT GQWKSITLTV QEDRAQLYID CEKMEAKLD 180
 30 VPIQSVEITRD LASIARLRIA KGGVMDNEQG VLQNVRFVFG TTPEDILRNK GCSSTSVLL 240
 TLDNNVNGS SPAIRTNVIG KTKIDLOAIC GISCELSM VLELRGLRTI VTTLDQSIK 300
 VTEENKELAN ELRRPPLCYH NGVQYRNNEE WTVDSCTRCH CQNSVTICKK VSCPIMPEN 360
 ATPVDGECCEP RCWPSDSADD GWSPWSEWTS CSTSCQNGIQ QGRSCDSLN NACESSSVQT 420
 RTCHIQCCKK RFKQDGGWSH WSPWSSCSVT CGDGVITRIR LCNSPSPQMN GKPCSSEKRE 480
 35 TKACKKDACP INGGWGPWSE WDICSVTCGG GVQKRSRLCN NPAPQFGGKD CVGDVTEHQI 540
 CNKQDCPIDG CLSNPCFAGV KCTSYPDGSH KCGACPPGYS GNGIQCTDVD ECKEVPDACF 600
 NHNGEHRCEW TDGYNCLFC PERFTGSQFF GQGVHEATAN KQVCKFRNPC TDGTHDCNKN 660
 AKCNVGLHYS DPMYRCECKP GYAGNGIICG EDTDLGWPN ENLVCVANAT YHCKKDNCFN 720
 LPNSGQEDYD KDGIGDACCDD DDDNDKIPDD RDNCFPHYNP AQYDYDRDIDV GDRCDNCFYN 780
 40 HNPQADTDN NGEGDACAD DDGGILNER DNCQYVYVND QRTDMQGVG DQCDNCPLEH 840
 NPDQLDSDD RIGDTCNNQ DIEDGHONN LDNCPYVFNQ NQADHDKDGK GDACDHDDN 900
 DGIPDDKENC RLVPNPDQKD SDGDGRGDAC KDDFDHDSVP DIDDICPENV DISETDPRFP 960
 QMIPLDFRGT SQNDFNWVVR HQGKELVQTV NCDPGLAVGY DEFNAVDFSG TFFINTERDD 1020
 DYAGFVPGYQ SSSRFVVMN KQVTQSYWDT NPTRAQGYSG LSVKVVNSTT GPGEHLRHAL 1080
 45 WHTGNTPOQV RTLWHDPRHI GHKDFTAYRW RLSHRPKTGF IRVVMYEGKK IMADSGPTVD 1140
 KTYAGGRLGL FVFSQEMVFF SLLKYECRDP 1170

Seq ID NO: C223 Protein Sequence
 Protein Accession #: NP_002183.1

50 1 11 21 31 41 51
 MELLMLRGL LASCWIIVR SPTPGSECHS AAPDCPSCAL AALPKDVPNS QPEMVEAVKK 60
 HILNMLHKK RPDVTQVPK AALLMAIRKL HVGKVGNGY VEIEDDIGR ARMNLMETQ 120
 55 SEIITPAESG TARTCLFEI SKGSDLSVV ERAEVMFLK VPKANRTRK VTRIRFQQK 180
 HPQGLDTGE EAEVGLKGE RSELLSEKV VDARKSTWV FVSSSIQRL LDQGKSSLDV 240
 RIACQCQES GASVLLGKK KKEEREGEK KGGGEGGAG ADEKEQSHR PFLMLQARQS 300
 EDHPRRRRR GLECDGKVIN CCKKQFFVSF KDIGNWNI APGSHANYC EGECPSHIAG 360
 TSGSLSFES TVINKYMRG HSPFANKSC CVPTKLRFMS MLYYDDGQNI IKKDIQNMIV 420
 60 EECGCS 426

Seq ID NO: C224 Protein Sequence
 Protein Accession #: NP_000086.1

65 1 11 21 31 41 51
 MVEDTACVLL LTLAALGASG QGQSPLGSDL GPQMLRELQS TNAALQDVRD WLRQQVREIT 60
 FLQNTVMBCD ACQMQQSVRT GLPSVRELLH CAPGCFPGV ACTQTESGGR CQPCPAQFTG 120
 NGSHCTDVNE CNAHPCFPRV RCINTSEGRV CEACPPGYSG PTHQOVGLAF AKANKQVCTD 180
 70 INECRTGQHN CVFNSVCINT RGSFQCGPCQ PGFVGDQASG CQRGAQRFCP DGSFSECHH 240
 ADCVLERDGS RSCVCRVWMA GNGILCGRDT DLDGFEDEKL RCPEFQCRKD NCVTVFNSGQ 300
 EDVDRDGIQD ACDPDADGDG VENEKDNCPV VRNPDQRNTD EDKMGDACDN CRGKNDDQK 360
 DTDQDGRGDA CDDIDGDRI RNQADNCFRV FNSDQKDSG DGIGDADCNK FQKSNPDQAD 420
 VEDDFVGDAC DSDQDQDGDG HQDSRDNCPT VPNSAQEDSD HDGQGDACDD DDDNDGVFDS 480
 75 RDNCRIVFNP QGEDADRQGV GDVQDDFDA DKVVDKIDVC PENAEVTLTD FRAEQTVLD 540
 PEGDAQIDPN WVVLNQGREI VQTNWSDPGL AVGYTAFNGV DFEGTEHVNT VTDDEYAGFI 600
 FGQDSSSFY VVMQGMBSQT YWQANPFRV AEPGIQLKAV KSGTSGEGQL RNALWETGDT 660
 ESQVRLNWD PRNVGKDKK SYRWFLQHRP QVGYIRVRPY EGPELVADSN VVLDTTMRGG 720
 80 RLGVFCFSQS NIIMANLRYR CNDTIPEDYE THQLRQA 757

Seq ID NO: C225 Protein Sequence
 Protein Accession #: NP_612464

1 11 21 31 41 51

MRPQGPAAAP QRLRGLLLLL LLQLPAPSSA SEIPKQKOKA QLRQREVVDL YNGMCLOGPA 60
 GVPGRDGSFG ANGIPGTGTI PGRDGFKEGK GECLRESFEE SWTPNYKQCS WSSLNYGIDL 120
 GKLAECTPTK MRSNSALRVL FSGSLRLKCR NACCQRWYFT PNGABCSGPI PLEAIYLDQ 180
 GSPEMNSTIN IHTSSVBEGL CEGIGAGLVD VAIWVGTCSD YPKGDASTGW NSVSRIIEE 240
 LPK 243

Seq ID NO: C226 Protein Sequence
 Protein Accession #: NP_003216.1

1 11 21 31 41 51
 | | | | |
 MATMENKVIC ALVLVSMAL GLASAQTT CTAPRERQN CGFPGVTPSQ CANKGCCFDD 60
 TVRGVPMCFY PNTIDVPPEE ECZF 84

Seq ID NO: C227 Protein Sequence
 Protein Accession #: NP_056234.1

1 11 21 31 41 51
 | | | | |
 MPKRAHWGAL SVVILLMGH PRVALACPHD CACYVPSEVH CTFERSLASVP AGIARHVERI 60
 NLGFNSIQAL SETSFAGLTK LELLMIHGW IPSIEDGALR DLSSLQVYKF SYNKLKVITG 120
 QTLQGLSNLM RLHIDNKLIS FIEPQAFNGL TSLRLHLEG NLLHQLEPST FSTFTFLDYF 180
 RLSTIRHLYL AENMVRTLEA SMLRNPPLLE NLYLQGNPWT CDCEMRWFLE WDAKSRGLLK 240
 CKKDKAYEGG QLCAMCFSEK KLYKHIEHKL KDMTCLKPSI ESELRQNRGR SIEEBQEQEE 300
 DGGSQLILEK FQLPQNSISL NMTDEHGNMV NLVCDIKKPM DVYKIHNLQT DEPDIDINAT 360
 VALOFCEMPT REMYERLMKL IAYYSEVPVK LHRRLMSKD ERVSQYQRQD ADEEALYITG 420
 VRAQILAEPE WVMQPSIDIQ LNRQSTAKK VLLSYTYQYS QTISTKOTRQ ARGRSWVMIE 480
 PSKAVQSDQT VLEGGQCQLS CNVKAESFSP IPWVLEPGSI LKAPMDDEDS KFSTLSSGWL 540
 RIKSMPEPDS GLYQCIAQVR DEMDRMVYRV LVQSPSTQPA EKDTVTIGKN PGESVTLPCN 600
 ALATFEAHL S WLENRIIN DLANTSHVYM LFNGLTSLPK VQVSDSGYYR CVAVNQQAD 660
 HFTVGTITVK KQSGLPKRRG RRPQAKALSR VREDIVEDEG GSGMGDEENT GRRLHPKQD 720
 BVFLKTKDDA INGDKKAKKG RRLKLIWKHS EKEPETNVAE GRVVFESRRR INMANKQINP 780
 ERNADILAKV RGNLPRKTE VPPLIKTTSP PSLSEVTPP FPAVSPPSAS PVQTVTSABE 840
 SSADVPLLGE EHVLTGTTIS ASMGLEHNNN GVILVEPEVT STPLEEVDD LSEKTEZITS 900
 TEGDLKGTAA PTLISEPEP SPTLHTLDTV YEKPTHEETA TEGWSAADVG SSEPTSSSEY 960
 BFPLDAVSLA ESEPNQYFDP DLETKSQRDE DKMKEDTFAH LTPTPTIWNV DSTSQLPED 1020
 STIGEPGVPG QSELQGLTDM IHLVKSLSST QDTLLIKKGM KEMSQTLQGG NMLBGDPHIS 1080
 RSSSEGGQBS KSTLTDOSTL GIMSSMSPVK KPAETTVGTL LDKDTTIVIT TFRQKVPASP 1140
 TMTSPRRRR PNGRRRLRPM KFRHRHKQTP PTTAPSTETP STQPTQAPDI KISSQVBSBL 1200
 VETAKVDNTV NTPKQLEMEK NAETPSKQTP RRRHGRFENK HRYTPSTVSS RASGSKPSPS 1260
 PENKERNIVT PSSETILLPR TVSLKTEGYP DSDVMITTR KIVSSYKVKV ETLFVYTKPT 1320
 SDGKEIKDDV ATNVDKHKSD ILVTGESITN AIPTRSLVS TMGEFKBESS PVGFPCTPTW 1380
 NPSRTAQPCR LQTDIPVTTIS GENLTDPLLL KLEEDVDPTS EFLSSLTVST PFHQEAGSS 1440
 TTLSSIKVEV ASSQAETTL DQDLETTVA ILLSETRPQN HTPTAAMKE PASSSTSTIL 1500
 MSLGQTITTK PALSPRISQ ASKDSKENVF LNYVGNPETE ATPVNNRGTQ HMSGPNELST 1560
 PSSDRDAFNL STKLELEKQV FGSRLRGRF DSQRQDGRVH ASHQLTRVPA KPILPTATVR 1620
 LPEMSTQAS RYFVTSQSPR HWTNKPBITT YPSGALPENK QFTTPRLSST TIPLEHMSK 1680
 PSIPSKFTDR RTDQFNYSK VFGNNIPEA RNPVKGPPSP RIFHYENGLR PFFTNTKLSF 1740
 PQLGVTRRPQ IPTSPAPVMR ERKVIPOSYN RLSHSTFHL DCFEPAFLL HTFQTGSPS 1800
 TNLQIMFMS STQSSIGFIT SSVQSSGSPF QSSSKFAGG FPASKFWSLG EKPQLITKSP 1860
 QTVSVTAED TVFPCEATGK PKPFVTWTKV SIGALMTPT RIORFEVLKN GLVLIRKQV 1920
 QDRGQIMCTA SNLGLDRMV VLLSVTVQQP QILASEYQDV TVYLGDTIAM ECLAGTTPAP 1980
 QISWIPDDR VQQTVPVSES RITLHENRTL SIKEASFSDR GVIKCVASNA AGADSLAIRL 2040
 HVALPEFVIH QEKLENISLP PGLSIHICT AKAAELPSVR NVLGDGTQIR PSQFLRGNPL 2100
 VFENGTLYIE NLAPOSGRY BCVAANLVGS ARRTVOLNVQ RAAANARITG TSPRRTDVRY 2160
 GSTLKIDCSA SGDPNFRLW RLPSKRMIDA LPSFDSRIKV FANGTLVKS VTKDAGDYL 2220
 CVAENKVGDD YVVLKVDVVM KPAKIEHKEE NDEKVFYGGD LKVDCAVIGL FNPFIENSLP 2280
 DGSLVMSFMQ SDDSGGTRK YVVFNNGLY FNEVGNRREG DYTCEAENQV GKDERMRVRK 2340
 VVTAPATIN KTYLAVQVFPY GDVVTVACEA KGEPMKVTW LSPTNKVLPT SSEKYQIYQD 2400
 GTLLIQKAQR SDQSNYTCIV RNSAGEDERT VWIHNVPQP KINGNFNPT TVREIAAGGS 2460
 RKLIDCKAEG IFTPEVLMAF PEGVILPAPY YGNRITVHGN GSLDIRSLRK SDGVQLVCNA 2520
 RNBGGEARLI VQLTVLEPME KPIFHPFISE KITAMAGHTI SLNCSAAGTP TPGLVWVLPN 2580
 GTDLQSGQQL QRFYHAKDGM LEISGLSSVD AGAYRCVARN AAGTERLVS LKVLKPEAN 2640
 KQXENLVSI NQETLKELECT PFGAGQGRFS WTLEKGMHLE GPQTLGRVSL LDMGTLTVRE 2700
 ASVEDRGTYV CSMETEVGES VTSIPVIVIA YPFRITSEPT FVIYTRPGNT VKLNCMAMGI 2760
 PKADITWELP DKSHLKAGVQ ARLYGNRPLH PQGSLTIQHA TQRDAGFYKC MAKNILGSDS 2820
 KTTYIHVF 2828

Seq ID NO: C228 Protein Sequence
 Protein Accession #: Ros sequence

1 11 21 31 41 51
 | | | | |
 MPGKTLRTG APADYRVILK TSQDELDVDP DDISVRVMSS QSVLVSVDVP VLEKQKVVVA 60
 SRQYTVRYRE KGLNARWYK QIANRRVLIE NLIPDTVYEF AVRIISQGERD GKWSTSVFOR 120
 TPESAPTAP ENLNWFPVNG KPTVVAASWD ALPETGKVK VCLLDTGLFS VSSFPQSAKS 180
 FQNTFFATPR LSHMLEQSPS FPLETLLLPW WMVCSLGNAI FSKSGPQTGE ANDITPKPSL 240
 SLQKQBCSCT QKDFSCLAYL IDIQTKQVNK DPQLEGSVFG PCFLFYFLTF MLDIGGFSFI 300
 MCYEDPPVVS LTNGLSKSVA ASKADVQMT EDKPKPEKPS PSSPSRASA SSQPSVPA 360
 PQGNAKDLL LDLLKNILAN GGAPKPKQLR AKKAEELDLQ STRITGESEL GSREDSTMS 420
 SDTQDKRTL RPPSRGHSV VAPGRTAVRA RMPALFEREG VDKPGFSLAT QPRFGAPPSA 480
 SASPAHHAET QCTSERPSLF ASLNDNDLVD SDEDERAVGS LHPKGAFAQF RPALSPSRQS 540
 PSSVLRDRSS VHPGAPASP ARRTPHSGAA EEDSSASAPP SRLSPFHGGS SRLFTQFEL 600
 SSPLSKGKGD GEDAPATNSN APSRSTMSSS VSSHLSSRTQ VSEGAASADG BSHGCDRED 660

GGRQAEATAQ TLRARPASGH FHLRLHKPPA ANGRSPSRFS IGRGPRLQPS SSSQSTVPSR 720
 AHPRVPSHSD SHPKLSSGIH GDEDEKFLP ATVVDNRVPS SSRQPIERGW EDLERSPQRG 780
 ASLHRKEPI ENPKSTGADT HPQKQYSSLA SKAQDVQOST DADTEGHSPK AQPSTDRHA 840
 SPARPFAARS QHPSVPRRM TPGRAPSQP PFPVATSQHH EGFQSRQAGR SPSPRLSLT 900
 QAGRPRFTSQ GRSHSSSDPY TASSRGMLET ALQNDQEDAQ GSYDDSDTEV EAQDVRAAH 960
 AARAKEAAS LKHIQVESP TGACAGGDHR SQRGHAASPA RPSRPGGQS RARVPSRAAP 1020
 GKSEPPSKRP LSSKSQSVS AEDEEEDAG FFKGKEDLL SSSVPKWPSS STPRGGKAD 1080
 GSLAKEEREP AIALAPRGS LAPVKRPLPP PPGSSPRASH VPSRPPPSA ATVSPVAGTH 1140
 PWRFTTRAP PGHFTTTPML SLRQMMHAR FRNPLSRQPA RPSYRQGYNG RPNVEGKVL 1200
 GSNKGKNGQR IINGPQGTGM VVDLDRGLVL NAEGRYLQDS HGNPLRIKLG GDGRITVDLE 1260
 GTFVVSFDGL PLFGQGRHGT PLANACDKPI LSLGKPLVG LEVIKKTTHP PTTMPTTT 1320
 TPLPTTTT RTTATTMPR TTTTTPLETT TPRPTTATR RTTTRPTTT VRTTTRTTT 1380
 TTPKPTTPI TCPTTLETH DDDGNLIMSS NGIPECYAE DEFSGLETD AVTTEAYVI 1440
 YDEYEFETS RPTTTEPST TATTFVLE EGAISFPFE EFDLAGRKRF VAPYVTLNK 1500
 DPSAPCSLT ALDHQVDSL DEIIPNDLKK SDLPQHAPR NITVVAVEGC HSPVIVDWDK 1560
 ATPGLVITGY LVYSASYEDF IKNKFSQAS SVTLPIENL KENTRYTFFV QAQNFHGYGP 1620
 ISPSVSFVTE SDNPLLVPRP EGGELSGSHS LSNMIPATRT AMDGNM 1666

Seq ID NO: C229 Protein Sequence
 Protein Accession #: NP_003005.1

1 11 21 31 41 51
 MFLSILVALC LWLHLALGVR GAPCEAVRIP MCRHMPWNIT RMPNHLEHST QENAILAISQ 60
 YSELVDVNC S AVLRFFFCAM YAPICTLEEL HDPKPKCKSV CQRARDCEP LMKMYNHSWP 120
 ESLACDEL V YDRGVCISPE AIVTDLPEDV KWIDITPDMM VQERPLDVC KRLSPDRCKC 180
 KWKPTLATY LSKNYSYVH AKIKAVQSG CNEVTVVDV KRIFKSSSP1 PRTQVPLTN 240
 SSCQCPHILP EQDVLIMCYE WSRMMLLEN CLVEKNRDL SKRSIQWEER LQEQRRTVQD 300
 KKTAGRTSR ENPFKPKGK PAKKASPKK NIKTRSAQKR TNPVKV 346

Seq ID NO: C230 Protein Sequence
 Protein Accession #: NP_005931.1

1 11 21 31 41 51
 MAPAANLRSA AARALIFPML LLLQFPPLL ARALFPDVHI LHAERKGPQ WHAALPSSPA 60
 PAPATQEAPR PASSLRPPRC GVPDPSDGLS ARNEQKHFLV SGRWREKTL TYRILRFPWQ 120
 LVQEQVRQTM ABAKLVMSDV TPLTFTEVHE GRADIMIDFA RYWHGDLDF DPGGILAH 180
 FFPKTHREGD VHDVDETNT IGDDQGTDL QVAHEKGFHV LGLQHTTAAK ALMSAFYTR 240
 YPLSLSPDDC RGQVHLGQFP WPTVTSRTPA LGPQAGIDTN EIALEPDAE PDACEASFDA 300
 VSTRIGELFF PKAGFVWRLR GGQLQGYFA LASRHWQGLP SPVDAAFEDA QGHINEFQGA 360
 QYVYDGEKQ VLGPAPLTEL GLVRFVHAA LVWGEKKNKI YFFRGRDYWR FHPSTRRVDS 420
 PVPKRAIDNR GVPSEIDAAF QDADGYAYFL RGRLYWKEDP VKVKALRGEF RLVGPDFFGC 480
 AEPANTFL 488

Seq ID NO: C231 Protein Sequence
 Protein Accession #: NP_076927

1 11 21 31 41 51
 MGENDPFAVE APFSFSLFSG LDDLKISPA PDADAVAAQI LSLPLKFPF IIVIGIALI 60
 LALALGLGIE FDCSGKYRRC SFEKCIELIA RCDGVSDCKD GEDEYRCVRV GQNAVILQV 120
 TAAWKTMS DDWKGHYANV ACAQLGFPSY VSSDNLVSS LEGQFREBFV SINHLPLDK 180
 VTALHHSYV REGCAGSEV TLQCTACGHR RGYSSRIVGG NMSLLSQWF QASLQFCGYH 240
 LCGGSVITPL WITTAACHV DLYLPKSWTI QVGLVSLDN PAPSHLVEKI VHSKYKPKR 300
 LGMDIALMKL AGPITFNEI QPVCLNSEK NFFDGKVCWT SGWGATKDG DASPVLNEAA 360
 VPLISNKKCN HRDVYGGIIS PMLCAGYLT GGVNSCQGDG GGPLVCQERR LMKLVGATSE 420
 GIGCAEVNKP GVTYKVTSPF DWIHEQMERD LKT 453

Seq ID NO: C232 Protein Sequence
 Protein Accession #: NP_003211

1 11 21 31 41 51
 MLWKLTDNIK YEDCEDRHG TSNGTARLPQ LGTVGQSPYT SAPPLEHTPN ADFQPFYFP 60
 FYQFIYFQSQ DPFYEVNDPY SLNPLHAQPP PQHPGHPGQR SQSOLHHT HRGLPHQLSG 120
 LDPRRDYRRH EDLLRGPHAL SGLGLSLIE SLPHATBEVP HVEDPGINIP DQTVTKKGPV 180
 SLKSNSTNAV SAIPINKDNL FGGVNNENF FCSVPGRSL LSSSTSKYVT VAEVQRRLSP 240
 PECLNASLLG GVLRAKSKN GGRSLREKLD KIGLNLPRG RKAANVTLLT SLVEGEAVEL 300
 ARDFGYVCT EPPAKAVAEF LNRQHSDFNE QVTEKNMLLA TQICKEPTD LLAQDRSFLG 360
 NSRFPNILEP GIQSLTREN LISHGFSGPA VCAAVTALQ YLTSALKAMD KMYLSNNPNS 420
 HTDNNAKSSD KREKHK 437

Seq ID NO: C233 Protein Sequence
 Protein Accession #: NP_002979.1

1 11 21 31 41 51
 MKGLAAALEV LVCIMALCSC AQVGTNKLK CLVYTSWQIP QKFIVDYSET SPQCPKPGVI 60
 LLTKRGRQIC ADPNKKWQX YISDLKLA 89

Seq ID NO: C234 Protein Sequence
 Protein Accession #: NP_004054.1

1 11 21 31 41 51
 5 MILQAKLHSL CLMLYLATG YGQEGKFSGP LKPMIFSIVE GQEPQIIFQ FKANPPAVTF 60
 ELTGETDNIF VIERGOLLYY NRALDRSTRS THNLQVAALD ANGIIVEGPPV PITIEVKDIN 120
 DNRPTFLQSK YEGSVQRNSR PGRPFYVNA TDLDDPATPN GQLYYQIVIQ LPMINNVMYF 180
 QINNKTGAIS LTREGSQELN PAKNPSYMLV ISVKDMGGQS ENSFSDTTGV DIIVTENIWK 240
 APKPEVMVEN STDPHPKIT QVRWMDPGAQ YSLNDKEKLP RFPFSIDQEG DIYVTQPLDR 300
 10 EEKDAYVFYA VAKDEYGRPL SYPLRIHVKV KDINDNPTFC DPFVTVPFVQ ENERLGNSIG 360
 TLTAHDRDEE NTANSFLNVR IVEQTPKLP DGLPLIQTYA GMLQLAKQEL KKQDTPQYNL 420
 TIEVSDRDPK TLFCFQINVI DINDQIPIFE KSDYGNLTLA EDTNIGSTIL TIQATDADEP 480
 FTGSSKILYH IIKGDSSEGL GVDTPHTNT GYVLIKKPLD FETAAVSNIV FKAENPEPLV 540
 FGKYNASSF AKFTLIVTDV NEAPQFSQHV FOAKVSEDVA IGTKVGNVTA KDPGLDISY 600
 15 SLRGDTRGWL KIDHVTGEIF SVAPLDREAG SPYRVQVAT EVGSSLSISV SEFHLILMDV 660
 NDNPPLAKD YTGLPFFCHPL SAPGSLIFEA TDDQHLFRG PHFTFELGSG SLQNDWEVSK 720
 INGTHARLST RHTEFEEREY VILIRINDGG RPPLEGIVSL FVTPFCSEVG SCFRPAGBQT 780
 GIPTVGMAVG ILLTLLLVIG IILAVVFIRI KKOKGKDNVE SAQASEVKPL RS 832

Seq ID NO: C235 Protein Sequence
 Protein Accession #: NP_004434.1

1 11 21 31 41 51
 25 MARARPPPPP SPPFGLPLLL PFLILLPLLL LPAGCRALRE TMDTKWVTS ELAMTSHPE 60
 GWEEVSGYDE AMNPRTYQV CNVRESSQMN WRTGFIWRR DVQRVYVELK PTVRDCNSIP 120
 NIPGSCKEFP NLFFYEADSD VASASSPFWM ENPYVKVDTI APDESFSRLD AGRVNTKVR 180
 PGFLSKAGFY LAFQDQGACM SLISVRAFVK KCASTTAGFA LFPETLTGAE PTSLVIAFGT 240
 CIEHAVSEV PDLQYCNQDG EMMVFPVACT CATGHEPAK ESQCRPCPPG SYKAKQGE 300
 30 CLPCFPNSRT TSPAASICTC HNNFYRADSD SADSACTIVP SPFRGVISMV NETSLILEWS 360
 EPRDLGGRDD LLYNVICKKC KGAGGASACS RCDNVEFVP RQLGLTERRV HISHILAHTR 420
 YTFEVQAVNG VSGKSLPFR YAAVNITNQ AAPSEVPTLR LHSSSGSSLT LSWAPPERP 480
 GVILDYEMKY FEKSEGLAST VTSQMNVSQV DGLRFDARYV VQVARTVAG YQYSRPAEF 540
 ETTSESGGA QQLQQLPLI VGSATAGLVF VVAVVIAIV CLKQRKSGD SEYTEKLQY 600
 35 IAPGNKVVID PFTYEDNEA VREFAKEIDV SCVKIEVIG AGEFGVCRG RLKOPGRREV 660
 FVAIKTLKVG YTERQRDRFL SEASIMQFDP HPNIIRLEGV VTKSRPVMIL TEFMENCALD 720
 SFLRLNDQGF TVIQLVGMRL GIAAGMKYLS EMMYVHRDLA ARNILVNSNL VCKVSDFGLS 780
 RFLDDPSDF TYTSSSLGKI PIRWTAPPAI AYRKFTSASD VWSYGVIMME VMSYGERPYW 840
 DMSNQDVINA VEDQYRLPPP MDCPTALEQL MLDCHVRDRN LRPKFSQIVN TLDKLIRNAA 900
 40 SLKVASAGS GMSQPLDRT VPDYTTFTTV GMDLDAIKMG RYKESFVSAG PASFDLVQM 960
 TAEDLLRIGV TLAGHQKIL SSIQDMRLQM NQTLFVQV 998

Seq ID NO: C236 Protein Sequence
 Protein Accession #: NP_001795.1

1 11 21 31 41 51
 45 MYVGVLDKRD SPVYFGPARP ASLGLGPANY GPPAPPPAPP QYEDFSSYSH VEPAPAPPTA 60
 WGAPFPAPKD DWAAAYGPGP AAPAASPASL AFGPPPDFSP VPAPPGFGPG LLAQPLGGPG 120
 TPSSPGQRP TTYEWMRRSV AAGGGGSGK TRTKDKYRVV YTDEQRLELE KEFHYSRYIT 180
 50 IRRKEELAN LGLTERQVKI WPNRRAXER KVNKKKQQQ QPPQPPMAHD ITATPAGPSL 240
 GGLCFSTSL LATSSPMFVK EEFLP 265

Seq ID NO: C237 Protein Sequence
 Protein Accession #: NP_068813.1

1 11 21 31 41 51
 55 MGSDRARKGG GGPKDFGAGL KYNSRHEKVN GLREGVEFLP VNNVKKVEKH GPCRWVVLAA 60
 VILGLILLVL GIGFLVWHL YRDVRVQKV NGVMRITNEN FVDAYENSNS TEEVSLASKV 120
 60 KDALKLLYSG VFFLGPHYKE SAVTAFSEGS VIAYYNSKFS IPQHLVEEAE RVMAEEVVUM 180
 LPFRARSLKS FVVTSSVAFPT TDSKTQVORTQ DNSCSFGLHA RGVELMRFTT PGFPDSPYPA 240
 HARCAWALRG DADSVLSLTF RSPDLASCDE RGSDLVTYVN TLSFMEPEAL VQLCGTYPPS 300
 YNLTFHSSQN VLLITLITNT ERRHPGFEEAT FFQLPRMSSC GGRLLKAQGT FNSPYTFPHY 360
 PENIDCTWNI EVPNQHVKV RPKFFVLEP GVFAGTCPEK YVEINGEKYC GERSQFVVT 420
 65 NSNKITVRPH SDQSYTDGTF LAEYLSYDSS DPCFGQFTCR TGR CIRKELR CDGWADCTDE 480
 SDELNCSDA GHQFTCKNKF CKPLFWVCD S VNDGNSDE QGCSCPAQTF RCGNGKCLSK 540
 SQQCNGKDDC GDSDEASCP KVNVTCTKH TYRCLMGLCL SKGNPECDGK EDCSDGSEK 600
 DCDCLRSPT RQARVVGTD ADEGEWPNQV SLHALGQGH CAGSLISEPW LVSAAHYCID 660
 DRGFRYSOPT QWTAFLGLHD QSQRAPGVQ ERLKRIISH PEFNDFTDY DIALLELEKE 720
 70 AEYSSNVRPI CLPDASHVFP AGKAINVTOM GHTQYGGTGA LILQKSIRV INQTTCEMLL 780
 PQQITPRMMC VGFLSGGVDS CQDSGGGLS SVEADGRIFQ AGVVSWDGDC AQRNKGVTY 840
 RLPLFRDWIK ENTGV 855

Seq ID NO: C238 Protein Sequence
 Protein Accession #: Eos sequence

1 11 21 31 41 51
 80 MPFFLLLEAV CVPLFSRVFP SLPLQEVES KETIGKISAA SMMNCSAAV DIMFLDGSN 60
 SVGKGSEERS KEFAITVCDG LDISPERVKV GAFQFSSTF LEFPLDSFST QQEVKARIK 120
 MVFKGGRTER ELALKYLLHR GLPGGRNASV PQILLIVTDG KSQGDVALPS KQLKRGVTV 180
 FAVGVRFPRN ESLHALASEP RQGVLLABQ VEDATNGLF S TLSSSAICSS ATPDCREAH 240
 PCERTYLEMV RFPAGNAPCN RGSRTLAVL AARCFPYSWK RVFLTHPATC YRTTCPCPCD 300
 60PCQNGGTG VPEGLDGYC LCPLAFGGEA NCLAKLSLEC RVDLLFLADS SAGITLDBGFL 360

5 RAKVFVKRFV RAVLSEDSRA RVGVATYSRE LLVAVPVGEY QDVFDLVWSL DGIPFRGGPT 420
 LTGSALRQAA ERGFGSATRT GQDRPRRVVV LLTESHSEDE VAGPARHARA RELLLLGVGS 480
 EAVRAELEEI TGSPKHMVYV SDPQDLFNQI PELQGGKCSR QRPQCRTQAL DLVFMMLDTSA 540
 SVGPENFAQM QSPVRSCALQ FEVNPDTVQV GLVVGYSQVQ TAPGLDTKPT RAAMLRAISQ 600
 APYLGGVGSA GTALLHIYDK VMTVQRGARP GVPKAVVVLG GGRGAEDAAV PAQKLRRNGI 660
 SVLVVGVGVPV LSEGLRRLAG PRDSLHVA AADLRYHQDV LIEWLCGEAK RPNVNLCKPSP 720
 CMNEGSCVLQ NGSYRCKCRD GWEGPHCENR FLRRP 755

Seq ID NO: C239 Protein Sequence
 Protein Accession #: Bos sequence

10 1 11 21 31 41 51
 15 MPFFLLLEAV CVFLFSRVFP SLPLQSEVVS KETIGKISAA SKMMWC8AAV DIMFLLDG8N 60
 SVGKGSFERS KHAITVCDG LDISPERVRV GAFQFSSTPH LEFFLD9FST QOEVKARIKE 120
 MVFKGRTET ELALIKYLLHR GLPGGRNASV PQILIIITDG KSQGDVALPS KQLKERGVTV 180
 FAVGVRRPFRW EELHALASEP RGQHVLLAEQ VEDATNGLFS TLSSSAICSS ATPDCRVEAH 240
 PCEHRTLEWV REFAGNAPCW RGSRTTLAVL AAHCPFYSHK RVFLTEPATC YRTTCGPFCO 300
 20 SQPCQNGGTC VPEGLDGYQC LCPLAFGSEA NCALKLSLEK RVDLLFLDLS SAGTTLGDFL 360
 RAKVFVKRFV RAVLSEDSRA RVGVATYSRE LLVAVPVGEY QDVFDLVWSL DGIPFRGGPT 420
 LTGSALRQAA ERGFGSATRT GQDRPRRVVV LLTESHSEDE VAGPARHARA RELLLLGVGS 480
 EAVRAELEEI TGSPKHMVYV SDPQDLFNQI FELQGGKCSR QRPQCRTQAL DLVFMMLDTSA 540
 SVGPENFAQM QSPVRSCALQ FEVNPDTVQV GLVVGYSQVQ TAPGLDTKPT RAAMLRAISQ 600
 25 APYLGGVGSA GTALLHIYDK VMTVQRGARP GVPKAVVVLG GGRGAEDAAV PAQKLRRNGI 660
 SVLVVGVGVPV LSEGLRRLAG PRDSLHVA AADLRYHQDV LIEWLCGEAK RPNVNLCKPSP 720
 CMNEGSCVLQ NGSYRCKCRD GWEGPHCENR EWS8SCVVCB QGWILETFLR HMAFVQ88SS 780
 RTPPSNTREG LGTEMVPTFW NVCA8GP 807

Seq ID NO: C240 Protein Sequence
 Protein Accession #: XP_097386.1

30 1 11 21 31 41 51
 35 MPKSEPLGCL SPASAPGSA AATGANLPAA SGGPGPLGPP CTCPPESLGR GRAGSRAGSS 60
 PSQCVCVSGI LRNVSVDDPA SRRWVDLDSN SEDLSLLTLP MIVGTGGVGG GWARGWVPAQ 120
 EKEVAGSGGH AGRGNRRRLQ RVYGARSWIL GRKPCLRLL PASGGFVQPQ PCPSFATACR 180
 WGFPGVAVFN GAAQHFFLCR LGGGRVPSA TRTLDGF 217

Seq ID NO: C241 Protein Sequence
 Protein Accession #: CAC03433

40 1 11 21 31 41 51
 45 MLSSTDFTPA SWELVVRVDH PNEBQKQDVT LRVSGLHVQ GVMKLVEQI NISQDWSDEA 60
 LWWEQKHCHWL LKTHWTLDDY GVOADAKLLF TPOHMLRLR LFNLMVRLR VSFSAVVFKA 120
 VSDICKILNI RRSEELSLK PSQDYFKKKK KKORNNKEPI IEDILNLESS PTASGSSVSP 180
 GLYSKTMPTI YDPINGTPAS STMTWFSDSF LITEQCSILA PSQPPQSPEA LADMYQPRSL 240
 VDKAKLNAGW LSSRSRLMEQ GIQEDELILL RFKYYSFEDL NPKYDAVRIN QLYEQARWAI 300
 50 LLEEIDCTER EMLIFAALOY HISKLSLSAR TQDFAGESEV DEIEAALSNL SVTLEGGKAD 360
 SLLEIDITIP KLANNLKLF PRKLLPKAFK QYWFIFKDTB IAYFENKELE QGEPLKLNIL 420
 RGCEVVPDVN VAGRKFGIKL LTPVADGME MYLRCDHENQ YAQWMAACML ASKGLTMADS 480
 SYQPSVLNLL SPLEMKNRNS ASQVASSLEN MDMNPECFVS PRCAKHKSK QLAARILEAH 540
 QNVAGMPLVE AKLRFTQAW SLPEFGTTY LVRFKGSKKD DILGVSYNRL LKIDAATGIP 600
 55 VTIWRETNIK QMNVWETRO VVIEFDQNVF TAPTCLSADC KIVREYIGGY IFLSTRSKDQ 660
 NETLDEDLFH KLTTGGQD 677

Seq ID NO: C242 DNA Sequence
 Nucleic Acid Accession #: NM_005170
 Coding sequence: 337..918

60 1 11 21 31 41 51
 65 GGGCGTGAGA AAGCGACCG CGGCGGCGCG GAGGAGGGTT ATCTATACAT TTAAAAACCA 60
 GCGCGCTGCG CCGCGCTGCG GGAGACCTGG GAGAGTCCGG CCGCACGCGC GGGACACGAG 120
 CPTCCACGCG TCCTTGCGCG GTACGGCTGG CCACCACTAG GCCTCTATC CCGGGCTCC 180
 AGACGACCTA GAGCGCGTGC CCTGGGAGT TGCTGGCGCG CGCGTGCCA GAAGCCCTCT 240
 TGGGGCGCCA CAGTTTTCCT CGTCGCTGCC GGTTCCTCTG CTGACACCTT CTGCGGCGC 300
 GCGGGACCTT GAGCGGGCGG GGTGGATGCA GCGCGGATGG ACGGCGGAC ACTGCCAGG 360
 70 TCGCGGCCCC TCGCGCCCC CGTCCCTGTC GGTGCGCTG CCGCGCGGAG ACCCGGCTCC 420
 CCGGAACCTG TCGCTGCGAG CCGCGCGCGG CGACCGGCGA CCGCAGAGAC CGGAGGCGCG 480
 GCAGCGGCGG TAGCGCGCGG CAATGAGCGC GAGCGCAACC GCGTGAAGCT GGTGAACCTG 540
 GGCTTCACAG CGCTGCGGCA GCACGTGCGC CAGCGGCGCG CCAGCAGGAA GCTGAGCAAG 600
 75 GTGAGACGCT TCGCTCAGC CGTGGAGTAC ATCTCGCGCG TGCAGCGCTT GCTGGCGGAG 660
 CAGCAGCGCG TCGCAGCGC GCTGGCGGGA GGGCTGAGGC CGCAGGCGGT GCGGCGGTCT 720
 GCGCGCGCGG GCGCGCGGAG GACCACTCCG GTCGCGCGCT GCGCTTCCG CGCTTCTG 780
 TCCCGCGGCC GCGCGGCGAG CTCGAGCGCC GGTCTCCCGC GTTCCGCTA CTCGTGCGAC 840
 GACAGCGGCT GCGAGGCGCG GCTGAGTCTT GCGGAGCGCG AGCTACTCGA CTCTCTCAGC 900
 80 TGGTAGGGG GCTACTGAGC GCCCTCGACC TA 932

Seq ID NO: C243 Protein Sequence
 Protein Accession #: NP_060233.1

1 11 21 31 41 51

| | | | | | | | |
|----|-------------|------------|------------|-------------|------------|------------|-----|
| | MSGGHQLQLA | ALNPWLLMAT | LQAGFGRTGL | VLAADVESER | SAEQKAVIRV | IPLKMDPTGK | 60 |
| | LNLTLLEGVFA | GVARITPAEG | KLMQSHPLYL | CNADDDNLE | PGFISTVKLE | SPRRAPRPCI | 120 |
| 5 | SLASKARMAG | ERGASAVLED | ITEDRAAAEQ | LQQLGLTWP | VVLINGNDAB | KLMEFVYKQ | 180 |
| | KAHVRIELKE | PPAWDYDVW | ILMTVVGTIF | VIIILASVLRI | RCRPRHSRED | PLQORTAWAI | 240 |
| | SQLATRRYQA | SCRQARGSWP | DGSSSCSSAP | VCAICLEEF | EGQELRVISC | LHEPFRNCVD | 300 |
| | PWLHQHRTCF | LCVFNITEGD | SFSQSLGFSR | SYQEPGRRLH | LIRQHPGHAH | YHLPAAYLLG | 360 |
| | PSRSAVARPP | RPGFPLPQSE | PGMGPRHERF | PRAAHPRAPG | EQORLAGAQH | PYAQGWGMSH | 420 |
| 10 | LQSTSQHPAA | CPVPLRRARP | PDSSGSGESY | CTERSGYLAD | GFASDSSSGP | CHGSSSDSVV | 480 |
| | NCTDISLQGV | HGSSSTFCSS | LSSDFDPLVY | CSPKGDPOKV | DMQPSVTSRP | RSLSDSVPTG | 540 |
| | ETQVSSSHVY | HRHRHHHYK | RFQWHGRKPG | PETQVPQSRP | PIRTPQPPH | PSPDQQVPTG | 600 |
| | SNSAAPSGRL | SNPQCPRALP | BPAPGPVDAS | SICPSTSSLF | NLQKSSLSAR | HPQRKRGGP | 660 |
| | SEPTPGSRPQ | DATVHPACQI | FFHYTPSVAY | PWSPEAEPLI | CGPFGLDKRL | LPETPGPCYS | 720 |
| 15 | NSQFVNLCLT | PRQPLEPHPP | GEGPSEWSSD | TAEGRPCYP | HCQVLSAQPG | SEEELEELCE | 780 |
| | QAV | | | | | | 783 |

Seq ID NO: C244 DNA Sequence
Nucleic Acid Accession #: NM_004289
Coding sequence: 493...1695

| | | | | | | | |
|----|-------------|-------------|------------|------------|------------|-------------|------|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| | GCGGCGCCCT | CGTCCACCGG | AGGAGCCGGC | GCCAGCGTGG | ACGGCGGCAG | CCAGGCTGTG | 60 |
| | CAGGGGGGGG | GCGGGGACCC | CGGAGCGGCT | CGGAGTGGCC | CCTTGGACCG | CGGGGAAGAG | 120 |
| 25 | GAGAGGCGAC | CGCGGGAACC | GACGGCTCAG | GTGCGGACG | CTGGCGGATG | TGCGAGCGAG | 180 |
| | GAGATGGGG | TACTAAGAGA | AAAGCACGAA | GCTGTGGATC | ATAGTTCCCA | GCATGAGGAA | 240 |
| | AATGAAGAAA | GCGGTGTCAG | CCAGAAGGAG | AATTCACCTC | AGCAGAATGA | TGATGATGAA | 300 |
| | AACAAATATG | CAGAGAAACC | TGACTGGGAG | GCAGAAAGA | CCACTGAATC | TAGAAATGAG | 360 |
| 30 | AGACATCTGA | ATGGGACAGA | TACTTCTTTC | TCTCTGGGAG | ACTTATTCCT | GTTCCTTTCA | 420 |
| | TCACAGCCTG | AAAATTCACT | GGAGGSCATC | TCATTGGGAG | ATATTCTCTC | TCCAGGCAGT | 480 |
| | ATCAGTGTAT | GCATGAATTC | TTCAGCACAT | TATCATGTAA | ACTTCAGCCA | GGCTATAAGT | 540 |
| | CAGGATGTGA | ATCTTCATGA | GGCCATCTTG | CTTTGTCCCA | ACAATACATT | TAGAAGAGAT | 600 |
| | CCAAACAGCA | GGACTTCACA | GTCAACAAG | CCATTCTGCG | AGTTAAATTC | TCTATCCACC | 660 |
| 35 | AATCTGAGC | AAACCCCTCC | TGGAACTAAT | TGACAGGAT | TTCTTTCAAC | GGTTGACCAAT | 720 |
| | CATATGAGGA | ATCTAACAG | CCAAGACCTA | CTGTATGACC | TGACATAAA | TATATTTGAT | 780 |
| | GAGATAAAT | TAATGTCAAT | GGCCACAGAA | GACAACTTTC | ATCCAATCGA | TGTTTCTCAG | 840 |
| | CTTTTGTATG | AACCAATTC | TGATTCTGGC | CTTCTTTTAG | ATTCAAGTCA | CAATATATCC | 900 |
| | TCTGTCTATC | AGTCTAATTC | CTCTCACTCT | GTGTGTGATG | AAGTGTCTAT | AGGTTATTGC | 960 |
| 40 | ACTGACCATG | AATCTAGTGT | CCATCATGAC | TGAGAGGTG | CTGTAGGTGG | CTACTACCCA | 1020 |
| | GAACCCAGTA | AGCTTTGTCA | CTTGGATCAA | AGTGAATCTG | ATTTCCATGG | AGATCTTACA | 1080 |
| | TTTCAACACG | TATTTCAATA | CCACACTTAC | CACCTACAGC | CAACTGACCC | AGAATCTACT | 1140 |
| | TCTGAACCTT | TTCGCTGGCC | TGGGAAGTCA | CAGAAGATAA | GGAGTAGATA | CCTTGAGAGC | 1200 |
| | ACAGATAGAA | ACTTGAGCCG | TGATGAACAG | CGTGCTAAAG | CTTTCATAT | CCCTTTTCTT | 1260 |
| 45 | GTAGATGAA | TTGTGGGATG | TCTTTCAATA | GCATGTTAAG | TAGATATTAT | | 1320 |
| | CTGACAGACC | TACAAGTCTC | ACTTATCCGT | GACATCAGAC | GAAGAGGGAA | AAATAAAGTT | 1380 |
| | GCTGCGCAGA | ACTGTGCTAA | ACGCAAAATG | GACATAATTT | TGAATTTAGA | AGATGATGTA | 1440 |
| | TGTAACTTGC | AAGCAAGAGAA | GGAAACTCTT | AAGAGAGAGC | AAGCACATAT | TAACAAAGCT | 1500 |
| | ATTAACTATA | TGAACAGAA | ACTGCATGAC | CTTTATCATG | ATATTTTATG | TAGATTAAAG | 1560 |
| 50 | GATGACCAAG | GAATCCCACT | CAATCCCACT | CACTATGCTC | TCCAGTGTAC | CCATGATGGA | 1620 |
| | AGTATCTTGA | TAGTACCCAA | AGAACTGGTG | GCCTCAGGCC | ACAAAAGGA | AACTCAAAGT | 1680 |
| | GGAAAGAGAA | AGTCGAAGA | AACCTGAAGT | GAATCTTATT | ATGTGAAGTA | GTAATGTTCA | 1740 |
| | GAACCTGATT | ATTGGGATCA | GAACCATTTG | AAACTGCTTC | AAGAAATGTA | TCTTTAGTGA | 1800 |
| | CTGTCTACTG | AATTAACCTAG | TAAACGCTGT | TTTGAAGCTT | ACATGGACAA | ATGTTTAGGA | 1860 |
| 55 | CTTCAAGATT | ACACTCTGGG | GCAATCTGGG | GGAGCCACAA | CTTTTCATGA | AGTGCATTGT | 1920 |
| | ATACAAATTT | CATAGTTATG | TCCAAGAAT | AGGTTAAAT | GAAACCCAG | TAAAGCTTTC | 1980 |
| | CATCTTGGCA | GCCATCTTTT | TAAAGGTAA | GTGTTTACT | TCAAAAAGAG | CAAACTCTGG | 2040 |
| | GGATCAAAAT | ATTTTAAGAG | GTATTTCAAT | TTTAAATGCA | AAATAGCCTT | ATTTTCATTT | 2100 |
| | AGTTTGTATG | CACATATAGT | AGCTTTTCAA | ACACTATTTT | AATCTTTATA | TTTAACTTAT | 2160 |
| 60 | AAATTTTGTCT | TTCT | | | | | 2174 |

Seq ID NO: C245 Protein Sequence
Protein Accession #: NP_004433

| | | | | | | | |
|----|-------------|-------------|------------|------------|------------|------------|-----|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 65 | MALRRRLGAAL | LLLPLLAAVE | ETLMDSTTAT | AELGMMVHPP | SGWEEVSGYD | EMMNTIRTQ | 60 |
| | VGNVFESSQN | NWLRTKFIIR | RGARHRIHVM | KFSVRDCSSI | PSVPGSCKET | PNLYYYEADF | 120 |
| | DSATKTFPFW | MENPVVKVDI | TAADSPSQV | DLAGRVKIN | TEVRSFGPVS | RSGFYLAQD | 180 |
| 70 | YGGCMELIAV | RVFYKCKPRI | IQNGAIFQET | LSGAESTSLV | AARGSCIANA | EEVDVPIKLY | 240 |
| | CNGDGEWLVF | IGRCMCKAGF | BAVENGTVC | GCPSGTFFAN | QGDSEACTEC | INSRTTSEGA | 300 |
| | TNCVCNMGY | RADLDPLDMF | CTTIPSAFQA | VISSVNETSL | MLEWTPPRDS | GGREDLVNMI | 360 |
| | ICKSCSSGSG | ACTRCGDRVQ | YAFRQLGLTE | PRIYISDLIA | HTQYTFEIQ | VNGVIDQSPF | 420 |
| | SPQFASVNTI | TNQAPPSAVS | IMHQVSRIVD | STLWSQSDP | QPNGVILDYE | LQYXKELSE | 480 |
| 75 | YNATAIKSGT | NVTVTQGLKA | GALVVFQVRA | RTVAGYGRYS | GKNYQTMTE | AEVQTSIQEK | 540 |
| | LPILLIGSSA | GLVFLIAVVV | IAIVCNRRRG | FERADSEYTD | KLOHTSGEM | TFGMKIYIDP | 600 |
| | FTYEDNEAV | REFAPKIDIS | CVKIDQVIGA | GSPGEVCSGH | LKLPGKREIF | VAIKTLKSGY | 660 |
| | TEKQRDRFLS | EASIMQQFDH | PNVHLEBQV | TKSTFVMYIT | RFMENGSLDS | FLRQMDGQFT | 720 |
| | VIQLVGMRLG | TAAGMKYLAD | MNYVHEDLAA | RNILLVNSLV | CKVSDFGLSR | FLEDDTSDPT | 780 |
| 80 | YTSALGGKIP | IKWTAPSAIQ | YRKFTSASDV | WSYGIWMHEV | MSYGERPYND | MTNQDVINAI | 840 |
| | EQDYRLPPFM | DCPSALHQLM | LDCWQKDRNE | RPKEGQIVNT | LDMKILNPN | LKAMAPLSSG | 900 |
| | INLPLLDRTI | PDTYTSFNTVD | ENLBAIKMGQ | YKESPANAGF | TSFDVVSQNM | MEDILRVGLT | 960 |
| | LAGEQKKILM | SIQVMRAQMN | QIQSVFV | | | | 987 |

Seq ID NO: C246 Protein Sequence

Protein Accession #: NP_114148.1

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1      11      21      31      41      51
5      |      |      |      |      |
MDARRVFQMD LRVKKRLAKF RYVKLISMST SSSSDSDSCDS PASDNFANTR LQSVREGCRT 60
RGQCRHSGPL RVAMKFPARS TRGATNKKAE SRQPSSENSVT DSNDSSEDES GNNFLEKRAL 120
NIRQNKAMLA KIMSLESEFP GSFGGRHPLP GSDESQRRPR RRTPPGVASR RNPERRARPL 180
TRSRSRILGS LDALFMEEEE EEDKYMVLVK RKTVDGYMNE DDLPRSRRSR SSVTLPHIIR 240
PVREITEGGV GERLQPSKFR RYITVHWALL VINAVRRLI PKQTAETQTA GAFEASSVAF 300
10     AFETVMVKRS QMLCWIRTGI ARLVEESATA VSAGSEMDGV RLGSGLCI 347

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Seq ID NO: C247 Protein Sequence
Protein Accession #: NP_036577.1

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1      11      21      31      41      51
15     |      |      |      |      |
MENPSPAAAL GKALCALLA TLGAAGQPLG GESICSARAP AKYSITFTGK WSQTAFPKQY 60
PLFRPPAQVS SLIGAHSDD YSMWRKNQYV SNGLRDFAEK GEAWALMKBI EAAGEALQSV 120
HAVFSAPAVP SGTGQTSAEL EVQRHSLVS FVVRIVPSPD WFGVDSLDL CDGDRWREQA 180
20     ALDLYPYDAG TDSGFTFSSP NFATIPQDTV TEITSSSPSH PANSFYYPRL KALPFIARVT 240
LVRLRQSPRA FIPPAFVLPS RDNEIVDSAS VPETPLDCEV SLWSSWGICG GHCGRLGTKS 300
RTRYVRVQPA NNGSPCELE EAEBCVPDNC V 331

```

Seq ID NO: C248 Protein Sequence
Protein Accession #: NP_063947.1

```

1      11      21      31      41      51
30     |      |      |      |      |
MLQDFDSQDP LNSLDVKPLR KFRIPMETFR KVGIPILIAL LSLASIIIVV VLIKVILDKY 60
YFLCGQLPHF IPRKQLCDGE LDCPLGEDEE HCVKSPFEGP AVAVRLSKDR STLQVLDSAT 120
GNWFSACFDN FTEALAEATAC RQMGYSSKPT FRAVEIGFDQ DLDVVEITEN SQELMRNNS 180
GPCLSGSLVS LKCLACGKSL KTFPVVGGEE ASVDSEWPHQV SIQYDKQHYC GGSILDPEHV 240
LTAHACFRKH TDVFNKVKRA GSKLGSFSPS LAVAKIIEE FNEMYPKMD IALMRLQFPL 300
TFSGTVPIC LPFFDEELTP ATPLNIGWG FTKNGGKMS DILLQASVQV LDSTRCNADD 360
35     AYQGEVTERK MCAIPEGGV DTCQGDSSGP LMYQSDQHHV VGIVSNGYGC GGPSTPGVYT 420
KVSAYLNNWY NVWKAEI 437

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Seq ID NO: C249 Protein Sequence
Protein Accession #: NP_003036.1

```

1      11      21      31      41      51
40     |      |      |      |      |
MGCKVLLNIG QOMLERKVVD CSREETLSR CLNTFDLVAL GVGSITLGAV YVLGAVARE 60
NAGPAIVISF LIALALSVLA GLCYGEFGAR VKTGSAYLY SYVTGELWA FITGWNLLS 120
45     YIIGTSSVAR ANSATFDELI GRPIGEFSST HMTLNAPGVL AENPDIFAVI IILILTGLT 180
LGVKESAMVN KIFTCIMVLV LGFIMVSGFV KOSVKNQLT EEDFGNTSGR LCLNNDTKEG 240
KPGCGPMFP GFSGVLSSAA TCFYAPVGED CIATIGREVK NPQKATFVGI VASLLICPIA 300
YFGVSAALTL MMYFVCLDNN SPLPDAPKEV GWGAKYAVA VGSILCALAS LGSMEFPMER 360
50     VYAMAEDGL LKPLANVND RTKTFIATL ASGAAVAVMA FLFDLKLVD LMSIGTLAY 420
SLVAACVLVL RYQPEQPNLV YQMASTDEL DPADQNELAS TDSQLGFLP EAEMFSLKIT 480
LSPKMEPEPK ISGLIVNIST SLIAVLIITF CIVTVLGREA LTKGALWAVF LLASGALLCA 540
VTVGVINBQP ESKTKLSFKV PPIPLPILS IFVNVYLMQ LDQGTNVRFA VMLIGFIY 600
FGYGLWHEEE ASLDADQART PDGNLDQCK 629

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Seq ID NO: C250 Protein Sequence
Protein Accession #: NP_002767.1

```

1      11      21      31      41      51
60     |      |      |      |      |
MRAPHILHSA ASGARALAKL LPLMAQLWA ARAALLPQND TRLDPEAYGA PCARGSQPHQ 60
VSLFNGLEFX CAGVLVDQSW VLTAAHCXNK PLWARVGGDE LLLLQGEQLR RTRSVVHPK 120
YHQGGPILP RTRDEHMLM LKLARPVVG PRVRALQLPY RCAQPGDQCC VAGWGTTAAR 180
RVKYNKGLTC SSITILSFKE CEVFPVGVVT NNMICAGLDR GQDPCQSDSG GPLVCDITLQ 240
65     GILSWGVYFC GSAGHPAVYT QICKYMSWIN KVIKRN 276

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Seq ID NO: C251 Protein Sequence
Protein Accession #: XP_095088.3

```

1      11      21      31      41      51
70     |      |      |      |      |
MTRAATAEPG KVPSPAPARS TAGLPRAFLO SLRTLLDILD DWQRGCVHIL EIQSLWVBAN 60
ELPSGVLEGL SQRSGPQQA AVRSRRGGAV PRGARAVPER CAGTETRRGR RCGSLQLRG 120
GFRGCPADPC ARGERRRITI TSGVDCGLLK QMKLEQKEKE VLLQGLEMA QGRDWTQQQL 180
75     QQVQERQCL QGSRASADFG AVGSERPLGR LLEKVGQVAR WLGEALLAEC AGRALPTSSS 240
GPPCSALTST SSPGWQQQII LMLKEQNLIL TQEVTEKSER ITQLBQKSAL IKQLFEARAL 300
SQQDGGLSPA GPETRPITRF RLPLVLTWAGA LLSPHSPQLL LPLSADSGGP LHELPTWFP 360
AVLLNVPSFG KRTAHARLHF HQRPAEGANQ LGCGAEAPK TOGTLPHFES HKTCEPDSL 420
GGPCPQSGDR SWSHGAADY VAPAVAKVTP NREDAAGSRG GDICPLCPKG LLTFRDIAIB 480
FSLAENQCLD HAQNLVLDV MLENYRNLF S LGMTVSKPDL IACLEONKEP QNKRNEPMAA 540
80     KHPVTCSEFN QDLQEQSLK DSLQKVIPT YKCGHEHLQ LKCKCKRVDE CEVKGQGYND 600
LNQCLNTQN KIFQTHKCVK VFSKFSNENR HNARYTGKKH LKCKKYGKSF CMPSHLNQH 660
IHTKESYK CEBCGSPNH SSGTTHKRI LTGKPYRCE ECGKAFRNPS NLTRHKRIHT 720
GEKPYACEC GQAFRRSSTL TNEKRIHTGE RPYKCECGK AFSVSSALIY HKRIHTGEKP 780
YTCEECGKAF NCSSTLKTAK IHTGKPYT CEBCGRTFNC SSTVKAKRI HTGKPYKCE 840

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ECDKAFKWH5 SLAKHKIIHT GBKPYKCSDS KALAKSSEVO KVVY9CDGENG IRVHKKKEIQ 900
 GNLVRNKNEN RTGLFQIRAA VRPNRDP5WG QQEGSLTDFI QRKEEPDLQN HYDHQNALED 960
 QRTQVGGGLL TFRDVIIEFS LEEWQCLDHA QQLNLYRDVMI ENYRNLVSLG IAVSKPDLLT 1020
 CLEQNKPEPN IKRNMVTKH PDLPELGIK DGLQKVIPRR YGKSGHDNLQ VKTCKSMGEC 1080
 EVQKGGCNEV NQCLSTTNK IFQTHKCVKV FGKFSNSNRH KTRHTGKHHF KCKKYGKSF 1140
 MVSQHLQHBI IHTRENSYQC EEOCKPFNC6 STLSKHKRIH TGEKPYRCSE CGKAFWSST 1200
 LTKHRRHHTG EKPYTCERG QAFERSSTLA NKRHTGEEK PYTCCECGKA FSLSSSLTYH 1260
 KRIHTGKPKY TCCECGKAFN CSSTLKKHKI IHTGKPKYC KECGKAFAPS STLWTHKRIH 1320
 TGSEPKKCEB CDKAFKNSSS LANHKSMTHT EKPYKCE 1357

Seq ID NO: C252 Protein Sequence
 Protein Accession #: NP_114433.1

1 11 21 31 41 51
 MASRSMRLLL LLSCLAKTGV LGDIIMRPSG APGWPFYHKN CYGYPRKLAN WSDALEECQS 60
 YGNGAHLASI LSLKEASTIA EYISGYQRSQ PIWIGLHDPQ KRQWQWIDG AMYLRSWWSG 120
 KSMGGNKHCA EMSNNNFLT WSSNECNKRQ HFLCKYRP 158

Seq ID NO: C253 Protein Sequence
 Protein Accession #: XP_051860.2

1 11 21 31 41 51
 MDGVNLSTEV VYKKGQDYRF ACYDRGRACR SYRVRFLCGK PVRPKLVTIT DTNVNSTILN 60
 LEDNVQSWKP GDTLVIASTD YSMYQAEFFQ VLPSCRSCAPN QVXVAGKPMY LHIGEEIDGV 120
 DMRAEVLGLS RNIIYMGEMZ DKCYPYRNHI CNPFDFTFG GHKKFALGFK AAHLBGTCLK 180
 HMGQQLVGQY PIRIFLAGDV DERGGYDPFT YIRDLSTHHT PSRCVTVHGS NGLLIKDVVG 240
 YNSLGHCFFT EDGPEERNTF DECLGLLVKS GTLLPSDRDS KMCKMITGDS YPGYIPKPRQ 300
 DCNAVSTFWM ANPMNNLINC AAAGSEETGF WFIFEHVPTG PSVGMYSFGY SEHIFLGKPY 360
 NNRAHSNYRA GMIIDNGVKT TEASAKDKRP FLSIISARYS PHQDADPLKP REPAIRRHFI 420
 AYKQPDHGAN LRGDVWLDG CRFADNGIGL TLASGGTFPY DQSGKQIKN SLFVGSNGNV 480
 GTEMMDNRIN GPGLDHSGR TLPIGQNFBI RGIQLYDGP I NIQNTCTFRK VALGGRHTSA 540
 LAPRLNNAWQ SCPHMNVGTI AFEDVEITSR VFFGEPGPF NQLDMQDKT SVFHDVDGVS 600
 SEYPSGYLTK NDMNLVRHDP CINVPDWRGA ICSGCIYQMY IQAYKTSNLR MKIINKDFPS 660
 HPLYLEGALT RSTHYQQYQF VVTLQGYTI HWDQTAPAEI AIWLINENKG DWIRVGLCYP 720
 RGTTFSLSD VHNRLKQTS KTGVPVRLQ MDKVEQSYPG RSHYTWDEDS GLLFLKLAQ 780
 NEREKPAFCS MKGCEKRIK ALIPKNAGVS DCTATAYPKF TERAVVDVPM PKKLPQSOLK 840
 TKDHFLEVKM ESKQHFFHL WNDFAKIEVD GKYPSSSEDG IQVVVIDGNQ GRVVSHTSFR 900
 NSILQGIWQ LFNYVATIPD NSIVLMASKG RYVSRGPWTR VLEKLGADRG LKLKQMAFV 960
 GFGSGFRFIN VTLDTEHKA KIFQVVPFV VKKKKL 996

Seq ID NO: C254 Protein Sequence
 Protein Accession #: NP_055188.1

1 11 21 31 41 51
 MTALSSENC5 FOYQLRQINQ PLDVNYLLFL IILGKILNT IILGMRKNT CQNFMEYFCI 60
 SLAFVDLLLL VNIISILYFR DFVLLSIRFT KYHICLFTQI ISFTYGLHY PVPLTACIDY 120
 CINFSEKTIK SFKQCKLEFF FTIVILWISV LAYVLGDPAL YQSLKQANAY SRHCFFYVST 180
 QSYWLSFFMV MIFVAFITC WEEVTLVQA IRITSYMET ILYFFPSSES STTVRSKKIF 240
 LSKLIVCLPS TMLPPVLLQV IIVLLKVQIP AYIEMNIPWL YFVNSFLIAT VYFNCEKLN 300
 LKIDGLPLDP FVNNKCCFIP LTIPNLQIE KPISIMIC 338

Seq ID NO: C255 Protein Sequence
 Protein Accession #: Bos sequence

1 11 21 31 41 51
 MALVLGSLLL LGLCGNSFGS QPSSSTDAPK AWNYELPATN YETQDSHKAG PIGILFELVH 60
 IFLYVVQPRD PFEDTLRKL QKAYESKIDY DKIVYYEAGI ILCCVLGLLF IYLMPLVGYF 120
 PCMCRCCKK GSEMQRQKE NQPLRKCFA ISLVICIII SIGIFYGFVA NHQVTRIKR 180
 SRLGADSNFK DLRTLLNETP EIKYILAQY NTKDKAFTD LNSINSVLGG GILDRLRPNI 240
 IFVLDEIKSM ATALKETKEA LENMNSTLKS LKQSTQLSS SLTSVKTELAR SSLNDPLCLV 300
 HPSSETCNSI RLSSLQLNSN PELRQLPFVD AELDNVNVVL RTDLGLVQO GYQSLNDIPD 360
 RVQRQTITVV AGIKRVLNSI GSDIDNVTR LPIQDILSAF SVYVNNTESY IRRNLPLLE 420
 YDSYWLGLL VICSLTLIV IFYILGLLGG VCGYDRHATP TTRGCVENIG GVFLMVGVGL 480
 SPLFCWILMI IIVLTFVFGA NVEKLICEPY TBKELFRVLD TPYLLNEDWE YLGGKLPNK 540
 SKMKLTFEQV YSDCKNNGT YGTILHONSF NISEHLNINE HTGSSISSELE SLKVNINIFI 600
 LGAAGRENLO DFAACIDEM NYDSVLAQTG KSPAGVNLLS FAYDLEAKAN SLPPGNLENS 660
 LKRDQTIKT IQRQVLPBZ QSLSTLYQSV KILQRTENG LERVTRILAS LDPAQNITN 720
 NTSSVILRET KKGRTITIGY FEHYLQWIEF SISEKVASCK FVATALDTAV DVFLCSYIID 780
 PLMLFWFGIG KATVFLPAL IFAVKLAKYV RRMDSQDVVD DVETIPMKNM ENGRNGYHKD 840
 HVGIIHNFVM TSFSQS 856

Seq ID NO: C256 Protein Sequence
 Protein Accession #: NP_149038.1

1 11 21 31 41 51
 MKAIHITLL ALLSVNTATN QGNSADAVTT TETATSGPTV AADTTETNF PETASTTANT 60
 PSFPTATSPA PPIISTHSSS TIPTAPPPII STESSSTIFI PTAADSEST MVNSLATSDI 120
 ITASSPDNGL ITMVPSETQS NNEMSPTTED NQSSGPFTGT ALLETSTLNS TGPSPNQDD 180
 PCADNSLCVK LHTSFLCLL EGYYSSTC KKGKVPFGKI SVTVSETFDF EKHSMAYOD 240

5
 10
 15

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LHSEITSLFK DVFGTSVYQG TVILTVSTSL SPRSEMRADD KFNVTIVTI LAETTSNNEK 300
TVTEKINKAI RSSSSNPLNY DLTLRCDDYQ CNQTADDCLN GLACOCKSDL QRPNPQSPFC 360
VASSLKCPDA CNAQHKKQLI KKGGGAFPCA CVTGYOEDAN GNCQKCAFQY SGLDCKDKPFQ 420
LLLTIVGTIA GIVILSMIIA LVTARSNNK TKHIBENLI DEDFQNLKLR STGPTNLGAE 480
GSPVFPKVRIT ASRDSQMQNP YSRHSSMPRE DY 512
  
```

Seq ID NO: C257 Protein Sequence
 Protein Accession #: NP_001423.1

10
 15

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1 11 21 31 41 51
| | | | |
MTAGRRNEML CAGRVPAALL CLGFHLLQAV LSTTVIPSCI PGESSNDCTA LVQTEDNPRV 60
AQVSTKCSS DMNGYCLEGQ CIYLVDMSQN YCRCEVGYTG VRCSEHFLTV HQPLSKKEYVA 120
LTVILILLEL ITVVGSTYTF CRWYRNKSEK EPKKEYERVY SGDEPLPQV 169
  
```

Seq ID NO: C258 Protein Sequence
 Protein Accession #: AAC63902.1

20
 25
 30

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1 11 21 31 41 51
| | | | |
MDRSKENCIS GPVKATAPVQ GPKRVLVTTQ IFCNPLEVNI SGQAQRVLCP SNBSORVPLQ 60
AQKLVSSEHKP VONQKQKQLQ ATSVPHFVER PLNNTQKSKQ PLPSAPENNP ERELASKQKN 120
EESKQKQNAL EDFEIGRPLG KGFQGNVYLA REKQSKFILA LKVLKFAQLE KAGVEHQLRR 180
EVEIQSHLRH FNILRLLYGYF HDATRVYLIL EYAPLGTVYR ELQKLSKFDV QRTATYITEL 240
ANALSYCHSK RVTHRDIKPE NLLLSGAGEE KIADFGWSVH APSSRRRTLC GTLDYLFPEM 300
IEGRMHDKCV DLWSLGLVLCY EPLVGKPPFE ANTYQETYKR ISRVEFTFPD FVTEGARDLI 360
SRLLKHNPQ RPMLREVLEH PWITANSSKP SNCQNKESAS QQS 403
  
```

Seq ID NO: C259 Protein Sequence
 Protein Accession #: NP_037504.1

35
 40

```

1 11 21 31 41 51
| | | | |
MSRTAYTVGA LLLLLGTLFP AABGKKKGSQ GAIPPPDKAQ HNSBQTSQSP QQPGSRNRGR 60
GQGRGTAMFG BEVLSSQSEA LEVTERKYLK RWCCKTQPLK QTIHESGCNS RTIINRFCTG 120
QCNSFYIPIH IRKEEGSFQS CSFCKPKCFT TMMVTLCNCP LQPPTKKKRV TRVQRCRCIS 180
IDLD 184
  
```

Seq ID NO: C260 Protein Sequence
 Protein Accession #: Bos sequence

45
 50
 55
 60

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1 11 21 31 41 51
| | | | |
MKVGVWLWIS FFFTFDGHGG FLGKNDGIKT KKLIVNKKK HLGPFVEEYQL LLQVTYRDSK 60
KKRDLERNFK LLKPPLLNWH GLIRIIRAKA TTDONSLNGV LQCTCEDSYT WFPFSCLDLPQ 120
NCLLETAGAL PSCCEHLNML SQSVNFCERT KINGTFKINE RPTNDLLNS SAIYSKYANG 180
LEIQLEKAYE RIQGFSSQCV TQFNGSIVA GYEVVGSSSA SELLSEIEEV AEKAKTALHK 240
LFPLEDGGRF VFGKAQNDI VFGFGSKDDE YTLPCSSGYR GNITAKCESS GWQVIRETCV 300
LSLLEELNKN FPMIVGNATE AAVSSFVQNL SVIIRQNPST TVGNLASVVS ILSNISLSL 360
ASHFRVSNST MEDVISIADN ILNSASVTNW TVLLREKYA SSRLELTEN ISTLVFPTAL 420
PLNFRKRPID WKGPVVKNSQ LKRGYSYQIK MCRQNTSIFI RGRVLIGSDQ FQSLPETII 480
SMASLTGMI LFVSKNGNAQ VNGFVISTVI QNYSINEVSL FFSKLESNLS QPHCVFWDPS 540
HLQNDAGCH LWNCTODIVT CQCTHLTSFS ILSPFVPRST IFPVVKMITY VGLGISIGSL 600
ILCLIIIEAL WKQIKKSQTS HTRRICMVNI ALSLLIADWV FIVGATVDTT VNPSSGVCTAA 660
VFFTHFFYLS LFFVWMLMGI LLAYRIILVF HMAQHLMMA VGFCILGYGCP LIISVITIAV 720
TQPSNTYKRI DVCLNLSNG SKPLLAFFVP ALAIVAVNFV VVLLVLTCLW RPTVGERLSR 780
DDKATIIIRVG KSLIIILFLL GLTWGFGIGT IVDSQNLAEH VIFALLNAFQ GFFILCFGIL 840
LDSKLRLLE NKLSELSWK QTEKQNSDGL SAKPKFSKPF NELQNKGIYA FSHTGDSSEN 900
IMLTQFVSNE 910
  
```

Seq ID NO: C261 Protein Sequence
 Protein Accession #: NP_000575.1

65
 70

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1 11 21 31 41 51
| | | | |
MTSKLAVALL AAPLISAALC EGAVLPRSAK ELRCQCIKTY SKPFHPKFIK ELRVIRSGPH 60
CANTEIIVKL SDGRELCIDP KENWVQRVVE KFLKRAENS 99
  
```

Seq ID NO: C262 Protein Sequence
 Protein Accession #: NP_005594.1

75
 80

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1 11 21 31 41 51
| | | | |
MSTERDSETT FDEDSQFNDE VVPYSDDETE DELDDQGS AV EPEQNRVNRE AERNREPPRK 60
ECTWQVKAND RXYERQPHFM NTKFLCICES KYANNAIKTY KYNAPTFFPM NLFQSPKRAA 120
NLFLALLIL QAVPQISTLA WYTLVPLLV VLGVTAIKDL VDDVARHMD KEINNRTCEV 180
IKDGRFPAK WKEIQVGVVI BLKKNDFVPA DILLSSSEF NSLCYVETAE LOGETNLKFK 240
MSLEITDQYL QREITLAFD GFIECEFPNN RLDKFTGTLE WENTSFPLDA DKILLRGCVI 300
RNTDFCHLNV IPAGADTKIM RNSGKTRFKR TKLDYLMNTH VYTIYVVLIL LSAGLAIGHA 360
YWEAQVGNSS WYLYDGEDDT PSYRGFLIFP GTIIVLNTMV PISLYSVSEV IRLGQSHPIN 420
WDLQMYIAEK DTPAKARTTI LNEQLGQIHV LPSDKTGTAT QNIMTFKKCC INQGIYGDHR 480
DASQENHNKI EQVDFSWNTY ADGLAFYDH XLIEQIQSGK EPEVRQFFEL LAVCETVMVD 540
RTDGLNLYQA ASPDFALVN AARNFGFAPL ARTQNTTIS ELGTERTYNV LAIDFNSDR 600
KRMSIIVRTP EGNINKLYCKG ADTVIYERLE RMNPTKQETQ DALDIFANET LRTLCCLCYKE 660
  
```

5 IEEKEFTSWN KGFMAASVAS TNRDEALDKV YEEIERKDLIL LGATAIEDKL QDGVFETISK 720
 LAKADIKIIV LTGDKKETAE NIGFACELLT EDTTICYGED INSLHARME NQRNRGGVYA 780
 KFAPPVQBSF FPGGNRALI ITGSLNEIL LEKTKRINKI LKLFPRTEE ERMRTQSKR 840
 RLEAKKEQEQ KMFVDLACEC SAVICCRVTP KQKAMVVDLV KRYKKAITLA IGDGANDVNM 900
 IKTAHIGVGI SQEQGMQAVM SSDYSFAQFR YLQRLLLVHG RNSYTRMCKP LRYPFYKXFA 960
 FTLVHFVYSF FNGYSAQTAY EDWFITLYNV LYTSLPVLLM GLLDQVSDX LSLRFPGLYI 1020
 VQQRDLLENY KRPFVSLHNG VLTSMLFFI PLGAYLQTVG QDGRAPSDYQ SFAVTIASAL 1080
 VITVNFQIGL DTSYNTFVNA PSIFGSIALY FGIMFDFHSA GIHVLFPESAF OPTGTASNAL 1140
 10 RQFYIWLTI LTVAVCLLPV VAIRFLSMTI WPSSEDKIQK HRRLKAEQ WQRQOVFR 1200
 GVSTRSAYA FSHQGYADL ISSGRSIRKK RSPIDAIVAD GTAEYRTGD S 1251

Seq ID NO: C263 Protein Sequence
Protein Accession #: XM_044533

15 1 11 21 31 41 51
 MLRTAMGLRS WLAAPWGAIP PRPPLILLILL LILLQLPPPP TWALSFRISL PLGSEERPFLL 60
 RFEAEHISNY TALLSRDGR TLYVGAREAL FALSSNLSPL PGGEYQELIW GADAEKKQCC 120
 20 SFKQKDFQRD CQNYIKILL LSGSHLFTCG TAAPSPMCTY INMENFTLAR DEKGNVLIED 180
 GKGRCPFDPN FKSTALVDG ELYTGTVSSF QGNDAISERS QSLRPTKTES SLNWLQDPAF 240
 VASAYIPBSL GSLQGDQDKI YFFPSETGQE FFFPENTIVS RIARICKGDE GSERVLQQRW 300
 TSFLKAQLLC SRPDDGFFFN VLQDVETLSP SPQDWRDTLF YGVFTSQWHR GTTBSSAVCV 360
 FTHKDVQRVF SGLYKEVNRE TQQNYTVTEP VPTPRPGACI TNSARERKIN SSLQLPDRVL 420
 25 NFKLDEFLMD QVRSRMLLL QPQARYQRA VHRVPGHLHT YDVLFGTGD GRHLKAVSVG 480
 PRVHIIEELQ IFSSGQPQCN LLLDTHRGLL YAAHSGGVVQ VPMANCSLYR SCGDCCLLARD 540
 PYCAWSSSSC KEVSLYQQL ATRPWIDIE GASAKDLCSA SBVSPSPFVP TGEKPCQVQ 600
 FQNTVNTLA CPPLSNLATR LMLRNGAPVN ASASCHVLEP GDLLLVGTQQ LGEPQCWSLE 660
 EGFQQLVASV CPEVVEDGVA DQTDEGGSVP VIISTSRVSA PAGGKASKGA DRSTWKEFLV 720
 30 MCTLPVLAVL LPVLFLLYH RNSMKVFLKQ GECASVHPKT CPVVLFPETR PLNLGLPST 780
 PLDHRGQSL SDSPGGSRVF TESEKRPLSI QDSFVEVSFV CFPFRVRLGS EIRDSV 837

Seq ID NO: C264 Protein Sequence
Protein Accession #: NP_008950.1

35 1 11 21 31 41 51
 MASQNRDPA TSVAAARKGA BPSGGAARQP VGRKLQQLM TLMMSGDKGI SAPPESDNLF 60
 KNGVTIHGA QTVYEDLRV LSELPFGYP YNAPTVEFLT PCTHPNVDQ GNICLDILKE 120
 40 KWSALYDVRT ILSIQSLIG ENIDSPLNT HAABLKNKPT AFKKYLQET SKQVTSQEP 179

Seq ID NO: C265 Protein Sequence
Protein Accession #: NP_055399.1

45 1 11 21 31 41 51
 MGRGNGFLFG LLGAVVLLSS GHGEEQPPET AAQRCPQVVS GYLDDCTCDV ETIDRFNNYR 60
 LFPRLOKLLS SDYFRYKYVN LKRPCFFWMD ISQCRRDCA VKPCQSDDEV DGKKSASYKY 120
 50 SEANNLIEE CEQAERLGA DESLSEETQX AVLQWTKHDD SSDNPFCEAD IQSPAEAYVD 180
 LLLNPERYTG YKGPDAWKI NVIYENCCK PQTIRPLNP LAGGQGTSEE NTFYSWLEGL 240
 CVERAFYRL ISGLHASINV HLSARYLLQE TWLEKKWGHN ITEFQORFDC ILTEGEGPFR 300
 LKNLYPLYLI ELKALSKVLE FFERPDQOLF TGNKIQDEN KMLLLEILHE IKSFFLHFD 360
 NSFFAGDKKE AHKLKEDFRL HFRNISRIMD CVGCFKCLW GKLTQQLGT ALKILFSEKL 420
 55 IAMPBSSGGS YEPHLTRQEI VSLFNAFGRI STSVKELNEN RNLLQNIH 468

Seq ID NO: C266 Protein Sequence
Protein Accession #: NP_002879.1

60 1 11 21 31 41 51
 MQFRQRLEA FWSGPRGPRP TAPILLALL LAPVAAPAGS GGPDDPGQPQ DAGVPRRLIQ 60
 QKAAALHFF NFRSGSPSAL RVLAEVQEGR AWINKEGCK VHVVFSTERY NPESLLQEGE 120
 GRLGKCSARV FFKNQKPRPT INVTCTRLIE KKKRQEDYL LYKQMKLKN PLEIVSIPDN 180
 RGHIDPSRL IWDLAFLGSS YVMWENTIQV SHYYLAQLTS VRQVVRKT 228

Seq ID NO: C267 Protein Sequence
Protein Accession #: NP_005400.1

70 1 11 21 31 41 51
 MSVKMAIAL AVILCATVVQ GPFMPKRGRC LCIGPGVIGV KVADIEKASI MYPNNCDKI 60
 EVIITLKENK QQRCLNFKSK QARLLIKKVE RKNF 94

Seq ID NO: C268 Protein Sequence
Protein Accession #: FGENSEH predicted

75 1 11 21 31 41 51
 MLRQVLRRLG QSFCHRLGLC VSRHPVFFLT VPAVLITITG LSALNRPQPE GDLERLVAPS 60
 HSLAKIERSL ASSLFPLDQS KSLYSDLHT PGRYGRVILL SPTGDNILLQ AEGILQTHRA 120
 80 VLEMKVNHKG YNTYFSELGV LRNQDKKCVL DDIISVLEDL RQAAVSNKTT ARVQVRYPTNT 180
 KLVKCSFCML LPVKEAALHF LP 202

Seq ID NO: C269 Protein Sequence
Protein Accession #: NP_002429.1

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|----|-------------|-------------|------------|-------------|-------------|-------------|------|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 5 | MRLELLLVFA | SVIPGAVLLL | DTRQFLIYNE | DHKRCVDAVS | PSAVQTAACN | QDAESQKFRW | 60 |
| | VSESQIMSV | FKLCGLVPSK | TDWVAITLYA | CDSKSEFQKW | ECKNDTILGI | KGEDLFENY | 120 |
| | NRQSKNIMLY | KSGSLNSRWK | IYGTTONLCS | RGYEMMYTLL | GNANGATCAF | PFKPKENKWA | 180 |
| | DCTSAGRS | DLWOGTTTDD | DTDKLFGYCP | LKPFEGSBSLW | NKDPLTSVSY | QINSKBSALT | 240 |
| | HQARKSCQQQ | NABELLSITEI | HEQTYLTGLT | SSLTSGLWIG | LNSLSFNBSGW | QWSDRSPFRY | 300 |
| 10 | LNWLPGPSA | SPGKSCVSLN | PGKNAKWENL | ECVQKLGYYIC | KKGNTTLNSF | VIPSESQVPT | 360 |
| | HCPSPQWNPYA | GHCYKIHRRDE | KKIQRDALTT | CRKSGGDLTS | IHTIEELDFI | ISQLGYEPND | 420 |
| | ELNIGLADIK | IQMYFEWSOG | TPVTPTKWL | GEPSHENNRQ | EDCVVMKGD | GYWADRGCSEW | 480 |
| | PLGYICMKKS | RSQGPPIEV | EKGCRKGWKK | HHFYCYMIGH | TLSTFAEBAQ | TCNNENAYLT | 540 |
| | TIEDRYEQAF | LTSFVGLRPE | KYFWTGLSDI | QTKGTPTQNTI | EEVRFPTHWN | SDMPGRKPGC | 600 |
| | VAMRTGIAGG | LMDVLKDEK | AKFVCKHWAE | GVTHFPKFTT | TPFCKCPEDW | GASSRTSLCF | 660 |
| 15 | KLYAKGHEK | KTFESRDFC | RALGGLASI | NNKKEQQTW | RLITASGSYH | KLFWLGLTYG | 720 |
| | SPSEGFTWSD | GSPVSYENWA | YGEPMYQNV | EYCGELKEDP | TMSWINDINCE | HLNNWICQIQ | 780 |
| | KSQFPKPEPT | PAQDNPFPVT | EDGWVIYKDY | QYFYSKEKET | MDNARAFCKR | NFGDIVSIQS | 840 |
| | ESERKPLWKY | VNRNDQASAY | FICLLISLDK | KFAHMDGSKV | DVYSHATGEP | NFANEDENCV | 900 |
| 20 | TMYSNCSFWN | DINCQGFNAF | ICQRHNSIN | ATTVMPTMPS | VPSGCKEBSN | FYSNKCPIKIF | 960 |
| | GFMEERKKNW | QEARKACIGF | GGNLVSIQNE | KEQAFITYEM | KDSTFSAWTG | LMDVNSHTTF | 1020 |
| | LWTDGROVRY | TNWGKGYPGS | RRSSLSYEDA | DCVVIIGGAS | NEAGKWMDDT | CDSKRGYICQ | 1080 |
| | TRSDPSLTNP | PATIQTDGPFV | KYKSSYSYLM | RQKQWHEAE | TYCKLENSLI | ASILDYFSNA | 1140 |
| | FAMLQMETSN | ERWVIALNSN | LTDNQYTWTD | KWRVRYTNWA | ADEPKLKSAC | VYLDLDGYNK | 1200 |
| 25 | TAHCNESFYF | LCSRSGEIPA | TEFPQLPGR | PESDETAWIP | FRGHCTYIES | GYTRNMGQAS | 1260 |
| | LECLEMSSSL | VSIESAESS | FLSYRVEPLK | SKTNFWIGLF | RNVEGTLMWI | MNSPVSFVNW | 1320 |
| | MTGDPGGERN | LCVALHASSG | FWSNIHCSSY | KGYICKRPKI | IDAKPTHELL | TTKADTRKMD | 1380 |
| | PSKPSNNAV | VVIIVILLIL | TGAGLAAYFF | YKKRRVELPQ | EGAPENTLYF | NSQSSPGTSD | 1440 |
| | MEDLVGNIEQ | NEHSVI | | | | | 1456 |

Seq ID NO: C270 Protein Sequence
Protein Accession #: Bos sequence

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|----|------------|------------|------------|------------|-------------|------------|-----|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 35 | MVLLHMCLLN | LLFPLSSRTQ | KLPTDRDELF | QMQRDKAF | HDSSVIPDGA | HISYLFPRDT | 60 |
| | PKRYFFVVEE | DNTPLSVTVT | PCDAFLWKL | SLQELPEDRS | GEGSGDLEPL | EQKQIINE | 120 |
| | EGTELFSYK | NDVSYFISSS | SPSGLYQDL | LSTEDTHFK | VYATTFPESD | QFYPELFPYD | 180 |
| | RVDVTSLGRT | TVTLAWKPSF | TASLLKQPIQ | YCVVINKSEN | FEKSLCAVEAK | LSADAFPMMA | 240 |
| 40 | PKPKLDFFFP | DFAHFGFSPD | NSGKERSFOA | KPSPKLGRHV | YSRPKVDIQK | ICIGNKNIPT | 300 |
| | VSDLEPDTQY | YFDFVFNIN | SNMSTAYVGT | FARTKEBAKQ | KTVSLKDGKI | TDVVFVKKGA | 360 |
| | KFLRFAPVSS | BQKVTFFIHS | CLDAVQIQVR | RDGKLLLSQN | VEGIQCPQLR | GKPKAKYLVR | 420 |
| | LKGNKQASAM | LKLLATTRPT | KQSPFSLPED | TRIKAFDKLR | TCSSATVAML | GTQERNKFCI | 480 |
| | YKKEVDNMYN | EDQKREBQNG | CLGPDIRKKS | EKVLCKYFHS | QNLQKAVTTE | TTIQLQPGKS | 540 |
| 45 | VLLDYVYIGH | GGSVVKQSK | VVTRKFKC | | | | 568 |

Seq ID NO: C271 Protein Sequence
Protein Accession #: AAH34229.1

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|----|-------------|------------|------------|------------|------------|------------|-----|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 50 | MEKVQLEPEN | QMEKKEIQEF | RSTRNKEKED | RESSEFYNKS | GKVGKLVNQS | YHMSQKGNV | 60 |
| | VKFSAGKVKL | KLLKEQIQEF | VKFTVNYKMA | NSSECEKPKI | NGKVCQGCE | KALLVCLLEC | 120 |
| | GEDYCSGCPA | NVHGKQALKL | HRTTLQARS | QILFNVLDA | RQFTEDVMPD | EPKEENNSTK | 180 |
| | ETSKIQHKKP | SVLLQRSSSE | VEITTMKRAQ | RTKPKSLKLL | EGSFDEEASA | QSFQSVLSQW | 240 |
| 55 | RTGNEDDNKK | QNLHAAVKDS | LEECVQTNL | KIWRBFINIE | LKEDILSYME | KLWLKHKHRT | 300 |
| | PQEQLEFKCYQ | IRSHHMKPL | VMSVLKMKI | MKIVMVRREP | YNTQLFYCQ | | 349 |

Seq ID NO: C272 Protein Sequence
Protein Accession #: NP_078963.1

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|----|------------|-------------|------------|------------|------------|-------------|-----|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 60 | MEKLWLKHER | RTPOBQLFNM | LSDTFFPHFE | TTGDAQCSQN | ENDESDGEE | TKVQHTALLL | 60 |
| | PVETLNIERP | EPSLKIVELD | DTYEEKPEEA | ENIVPYKVKL | ADADSQRSCA | FEDCQKNSFP | 120 |
| 65 | YENGHQHVV | FDRGKGRDPLN | LCLRNSTYY | KONSKGETEN | TDFDNIVDPD | VYSSDIEKIE | 180 |
| | ESTSFERNLK | EKNIGLESNQ | KSDDSVSLB | SKDTLLGRDL | EKAPIEEKLS | QDIKBSLELS | 240 |
| | NLYKPSFKE | SKTTKSSILL | QELACRSKPI | TKQYQGLERF | FIFDTNERLN | LLPSHRLBN | 300 |
| | NSSTRITLAE | DREWFDPHSL | SEYADNAIVL | GVLQGAQSPS | SSRKQQRMGQ | KQRPSTANF | 360 |
| | PLSNVSKESS | SCLSSSHPRS | ESAAAQSSSR | AASEISEIEY | IDITDQNELS | LDDTTDQHTL | 420 |
| 70 | DMLEKELQVL | RSLADTSEKL | YSLTSEEFDD | FSSQSLNISQ | ISTDFLKTSE | VRGPCGVVEEL | 480 |
| | SCSGRDTKIQ | SLLSLSSEST | DEEBEDFINK | QHVITLPMK | ST | | 522 |

Seq ID NO: C273 Protein Sequence
Protein Accession #: NP_005399.1

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|----|------------|------------|------------|------------|------------|------------|----|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 75 | MEKSAVLLCL | LIMTAAFNPQ | GLAQPDALNV | PSTCCFTFSS | KKISLQRLKS | YVITTSRCQP | 60 |
| 80 | KAVIPRTKLK | KKICADPKEK | NVQNYMKHLG | RKAETLKT | | | 98 |

Seq ID NO: C274 Protein Sequence
Protein Accession #: BAC05158.1

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| 1 | 11 | 21 | 31 | 41 | 51 |
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| MFLLTGGSVL | KSABKNPDPT | WLQDKSWEEL | CRASEFPAPR | GLRQHPCRHI | YEWREIYDSK | 60 |
| EPHNAKFPAP | MDKNTLNELQK | IIILRCLRPD | KITPAITNYV | TDKLGKKFVE | PPPPDLTKSY | 120 |
| LDSENCTIPLI | PVLSPGADPM | ASLLKFPANDK | SMSGNKFOAI | SLGQGGQPIA | AKMKAAIEE | 180 |
| GTWVCLQNCI | LAVSPMPMLE | KICEDFTSET | CNSSFRLWLT | SYPSKFFVT | LLQNGVRMTN | 240 |
| EPPTGLRLNL | LQSYLTDPVS | DREFFKGCRC | KELFINEYD | TIFFEAISYL | TGSCNYGGRV | 300 |
| TDDWDRRLLL | TMLADFYNLY | IVENPRYKFS | PSGNYFAPPK | GYEDYIEFI | KKLPTQHPK | 360 |
| IFGLHENVDI | SKDLQQTCTL | FESLLLTQGG | SKQTGASGST | DQILLEITKD | ILNKLPSDFD | 420 |
| IEMALRKYPV | RYEESMNTVL | VQEMERFNNL | IIITIRNTLRD | LEKAIKGVVV | MDSALEALSS | 480 |
| SLLVGKVPFI | WAKRSYPSLK | PLGSYITDFL | ARLNFLQDWY | NSGKPCVFWL | SGFFPTQAFI | 540 |
| TGAMQNYARK | YTFPIDLLGY | EFEVIPSDFS | DTSPEDGVYI | HGLYLDGARW | DRESGLLAEQ | 600 |
| YPKLLEFLMP | IIWIKPTQKS | RIIKSDAYVC | FLYKTSERKG | TLSTTGHSTN | FVIAMLLKTD | 660 |
| QPTRHWIKRG | VALLCQLDD | | | | | 675 |

Seq ID NO: C275 Protein Sequence
Protein Accession #: AAA60212.1

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| MAESHLQWL | LLLLPTLCGP | GTAANTTSSL | ACAQGPFEWC | QSLQALQCR | ALGHCLQEVN | 60 |
| GHVGADDLQ | ECRDIWHILN | KMAKBAIPQD | TMRKFLBQEC | NVLPLKLLMP | QCQNVLDYF | 120 |
| FLVIDYFQNG | TDNNGICMHL | GLCKSRQPEP | BQEPGMSDFL | PKFLRDPLFD | PLLDKGLVPV | 180 |
| LPGALQARPG | PTQDLSEQQ | FPIPLPYCWL | CRALIKRIQA | MIPKGLAVA | VAQVCRVVP | 240 |
| VAGGICQCLA | ERYSVILLDT | LLGRMLPQLV | CRVLRLCSMD | DSAGPRSPPT | EWLPRDSECH | 300 |
| LCMSVTQAG | NSSEQAIPQA | MLQACVGSWL | DREKCKQFVE | QHTPQLLTIV | PRGWDHATTC | 360 |
| QALGVCGTMS | SPLQCCHSPD | L | | | | 381 |

Seq ID NO: C276 Protein Sequence
Protein Accession #: NP_631911.1

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| MLGCGIPALG | LLLLQGSAD | GNGIQGFFYP | WSCBEDIWDR | ESCGGQAAD | SENLCLRLRC | 60 |
| CYRNGVCYEQ | RPDENVRKH | MNALVNTCSG | LLLLSCSICL | FWAKRRDVL | HMPGFLAGPC | 120 |
| DMSKSVBLLS | KRGTKKTPS | TGSVPVALSK | ESRDVEGGTE | GBGTERGEET | EGEERED | 177 |

Seq ID NO: C277 Protein Sequence
Protein Accession #: NP_473364.1

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| MKLVTIFLLV | TISLCGSYAT | AFLINKVPLP | VDKLAPLPLD | NILPFMDPLK | LLKTLGISV | 60 |
| EHLVEGRKRC | VNELQPEASE | AVKKLEALS | HLN | | | 93 |

Seq ID NO: C278 Protein Sequence
Protein Accession #: F0ENBSH predicted

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| MPLSYAYKNA | ETLAGRHTSS | WMSRGAYQRR | NTRAAGRPEE | CTDENWHAGR | TRGINLGQLE | 60 |
| ERCSDVFGVS | FFWVVRGLAG | SGAKLQTFTP | AOEGAPTQOR | QARALLCRQ | SGRFGRCGAE | 120 |
| BERARDASML | SPLSAAMRWY | PTSSTIPERE | SYSPTIAHAK | SYSCLSDMK | ISMAKSGPGL | 180 |
| DSLDILEDEG | SGSEFLVTHL | YFLGVVVTGM | BQLDFETGPN | IFDLQIYVKD | EVGVTDLQVL | 240 |
| TVQVTDVNEP | PQPGQNLAE | HLRADQPHFN | ASHTYVRVV | ATALARHLRL | SSIGSPFLGT | 300 |
| FCVVVGMDYF | LISPFKSPRM | SANGTLFSTT | ELDFEAGHRS | PHLIVEVRDS | GGKASTELQ | 360 |
| VNIVMLNDEV | PRFTSPTRVY | TVLEELSPGT | IVANITAEDE | DDEGEPSEHL | YSITTVSKYF | 420 |
| MINQLTGTIQ | VAQRIDRDAG | ELRQNPTISL | EVLVKDRPYG | QGENRIQITF | IVEDVNDNPA | 480 |
| TQCKTFPSS | LHPALCSKTL | TWMDTVLDCF | HAADKDIPVT | GRPTKERGLI | GLTVPHGWS | 540 |
| LTIMABKEE | QVTSYMGSR | QRDRACVGL | LLIKPSDLMR | LSHYHENSNG | KTCFHDSSIS | 600 |
| YQVPTTQAF | SRIQATNNE | TSSVTVTNLI | LEENDEKPIK | TPNSYFLALP | VDLKVGNTIQ | 660 |
| NFKLCTCLD | SSPSFRYSI | GGNVNHHFT | FSPNAGSNVT | RLILTSRFDY | AGGFQKIMDY | 720 |
| KLLVVTIDCN | LMSDRKABA | LVETGTVTLS | IKVIPHPTTI | ITTTTPRPRVT | XQVLRKNVYS | 780 |
| PSAMVVPFVI | TIGSILLGL | LVYLVLVLAK | AIERHCPCCKT | GKNKEPLTKK | GETKTAERDV | 840 |
| VVETIQMNTI | FDGEAIDPEP | EQASLELYAL | LPSCCDPSPV | TLRKVVQCGE | SEETQCCSGH | 900 |
| ITLPGKIPVD | DPREQSTGLQ | GDFSVWTLCP | AVKVVVGSBQ | AERCIRLALS | LKKYSSD | 957 |

Seq ID NO: C279 Protein Sequence
Protein Accession #: XP_168571.1

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| MINQLTGTIQ | VAQRIDRDAG | ELRQNPTISL | EVLVKDRPYG | QGENRIQITF | IVEDVNDNPA | 60 |
| TQCKTFPSS | VPERTAKGTL | LLDLNKFCTD | DDSEAPNNRF | NFTMPSGVGS | GSRLFLQDPAG | 120 |
| SGKIVLIGDL | DYENPSNLAA | GNKYTVIIQV | QDVAPPYYKN | NVYVYILTSP | ENEFPLIFDR | 180 |
| PSYVEDVSE | RPAQGHLSGP | BEKRLLSICM | VRAVCHHFL | HLASGSPRVP | GRPIQGSHPQ | 240 |
| TLPLQDWEEQ | GTSCKERRNE | DCRERRRGNN | YPDEHYL | | | 277 |

Seq ID NO: C280 Protein Sequence
Protein Accession #: NP_005257.2

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|------------|------------|------------|------------|------------|------------|-----|
| MGNWSFLGNP | LEEVHKhSTV | VGVVWLVLF | IFRMLVLGTA | AESSWGDEQA | DFRCDTIQPG | 60 |
| CQNVCDQAF | PISHIRYVVL | QIIFVSTPSL | VYMGHAMETV | RMQEKRLKRE | AERAKVEGGS | 120 |

GSYEYFPAEK AELSCWEEGN GRIALQGILL NTVVCSILTR TMEVGVFIVG QYFIYGIFLT 180
 TLHVCRRSPC PHPVNCVSR PTEKNVFIVP MLAVAALLSL LSLAELYHLG WKKIRQRFVK 240
 PRQHMMAKQL SGPSVGIVQS CTPPPDFNQC LENGPGGKFP NPPSNNMASQ QNTDNLVTEQ 300
 VRQEQQTGE GFYQVRYGQK PEVPGVSPG HRLPHGYHSD KRRLSKASSK ARSDDLVS 358

Seq ID NO: C281 Protein Sequence
 Protein Accession #: NP_055274.2

1 11 21 31 41 51
 MYLSICCCFL LWAPALTAKN LNVSVPEEQG AGTVIGNIGR DARLQPGLLP AERGGGGRSK 60
 SSSYRVLENS APHLIDVDAD SGLLYTKQRI DRESLCRNA KCQLSLEVPA NDKEICMIKV 120
 EIQDINDNAP SFSSDQIEMD ISENAAPGTR FPLTSAHDPD AGENGLRTYL LTRDDHGLFG 180
 LDVKSRRGDT KPPELVIQKA LDREQQNHHT LVLTAIDGGE PPRSATVQIN VKVIDSNDNS 240
 PVFAPSIVL ELPENAPLGT VVIDLNATDA DEGPNGEVLY SFSSYVPELV RSLFSIDPKT 300
 GLIRVKGMLD YEENGMLID VQARDLGPNP IPAHCKVTVK LIDRNDNAPS TGFVSVRQGA 360
 LSEAAPPQTV IALVRVTDSD SGRNGQLQCR VLGGGGTGGG GGLGGPGGSV PFKLEENYDN 420
 FTVVTDRLP DRETQDEYNV TTVARDGGSP PLNSTKSFAY KILDENDNPP RPTKGLYVLQ 480
 VRENNIPGEY LGSVLAQDPD LGQNGTVSYS ILPSHIGDVS IYTVSVNPT NGAIYALRSF 540
 NFEQTKAFEF KVLAKDSGAP AELESNATVR VTVLDVNDNA FVIVLFTLON DTAEIQVFRN 600
 AGLGYLVSTV RALSDPGES GRLYEIVDVG NDDHLFIDP SSSEIRTLHP FWEVTPVVE 660
 LVVKVTDHGK PTLSAVAKLI IRSVVGSLSPE GVPRVNGEQH HWDMSLPLIV TLSTISILL 720
 AAMITIAVRC KRENKEIRTY NCRLAEYSHP QLGGGKGGKK KINKNDIMLV QSEVERNAM 780
 NVNMVVSSES LATSEMYFDY QTRLPLSSPR SEVMYLPKAS NNLTVPQGHA GCRTSPTGGG 840
 TNASETPATR MSIIQTDFP AEPNMGSRQ QVQGISVAP RLRTQKEPA 889

Seq ID NO: C282 Protein Sequence
 Protein Accession #: NP_055592.1

1 11 21 31 41 51
 MELCRSLALH GSGSLGMLFCL IALSTDFWFE AVGPTHSAHS GLWFTGHGDI ISGYIHVTQT 60
 PSIMAVLWAL VSVSLVLSC FPSLFPPGEG PLVSTTAAPA AAIMVVMAMA VYTSEWRDQP 120
 PEPQIQTFES WSFYLGWVSA ILLCTGALS LGAECCGSPR CYSTL 165

Seq ID NO: C283 Protein Sequence
 Protein Accession #: NP_006424.2

1 11 21 31 41 51
 MATWALLLLA AMLLGNPGLV FRLSPPEYD LARAHLDDEE KSCPCLAQEG PQGDLITKTQ 60
 ELGRDYRTCL TIVQKLKMW DKPTQRSVSN AATRVCTGR SRWRDVCRNF MREYQSRVTQ 120
 GLVAGETAQQ ICBDLRICIP STGPL 145

Seq ID NO: C284 Protein Sequence
 Protein Accession #: NP_005594.1

1 11 21 31 41 51
 MKVSAALAV ILIATALCAP ASASFYSST TPCCFAYIAR PLBRAHIKEY FYSGRKCSNP 60
 AVVFVTRKNR QVCANPEKKW VREYINSLEM S 91

Seq ID NO: C285 Protein Sequence
 Protein Accession #: NP_071437.1

1 11 21 31 41 51
 MAPGRAVAGL LLLAAGLGG VAEGPGLAFS EDVLSVFGAN LSLSAQLQH LLEQMGAASR 60
 VGVPEPQGLH FNQCLTAEI FSLGFSNAT QITSSKFSVI CPAVLQQLNF HPCEDRPKHK 120
 TRPSESEVWG YGFLSVTIIN LASLLGLILT PLIKSYFEPK ILYFFVGLAI GTLFSMAIFQ 180
 LIPEAFGFDL KVDSTVEKAV AVFGGEYLLF FFERMLKMLL KTVGQNGHYH FGNDNFGPQE 240
 KTHQPKALPA INGVTYANP AVTEANGHIH FDNVSVSLQ DGKKGPSSTC CLKGPKLSEI 300
 GTIANMITLC DALENFIDGL AIGASCTLSL LQGLSTSTAI LCSEFFPEHL DPVILLNAGM 360
 STRQALLFNF LSACSCYVGL AFGILVGNF APTIIFALAG GMFLYISLAD MPFEMDMILR 420
 EKVTRKRTDF TFFMIQNGM LGFTAILLT TLYAGEIELE 460

Seq ID NO: C286 Protein Sequence
 Protein Accession #: NP_004175.1

1 11 21 31 41 51
 MPNSEPABL ELFNSIATQG ELVRSKAGN ASKDEIDSAV KMLVSLKMSY KAAAGEDYKA 60
 DCPPEGPAPT SNHGDATEA EEDFVDPTWT QTSSAKGIDY DKLIVRFGSS KIDKELINRI 120
 ERATQGRPHH FLRRGIFTSR RUMNQVLDAV ENKKPFYLYT GRGPSSEAMH VGHLEFIPT 180
 KWLQDVFNVP LVIQMTDDEK YLWKDLTLDQ AYGDVAVNAK DIIACGPDIN KTFIFSDLDY 240
 MGMTSGFYKN VVKIQKVTFF NVKGIKGFET DSDCIGKISF PAIQAAFSFS NSFFQIFRDR 300
 TDIQCLIPCA IDQPYFRMT RDVAPRIGYF KPALLHSTEF PALQGAQTKM SASDPKSSIF 360
 LTDITAKQIKT KVNKHAFSGG RDTIEERQF CGNCDVDVST MYLTFLEDD DKLEQIRKDY 420
 TSGAMLTGSL KKALIEVLQP LIAEQARRK EVIDEIVKEF MTPRKLSEDF Q 471

Seq ID NO: C287 Protein Sequence

Protein Accession #: NP_004929.1

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|----|------------|-------------|------------|------------|-------------|------------|------|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 5 | MTVFRQENVD | DYDYGGEELG | SGQFAVVKKC | REKSTGLQYA | AKFIKKQRTK | SSRRGVSRSD | 60 |
| | IEREVSILKE | IQHPNVITLH | EVYENKIDVI | LILELVAGGE | LFDPLAEKES | LTEBATEEFL | 120 |
| | KQILNGVYVL | HSLQIAHFDL | KPENIMILDR | NVPKPRIKII | DFGLAHKIDF | GNEFKNIFGT | 180 |
| | PEFVAPEIVN | YEPGLGLEADN | WSIGVITYIL | LSGASPFGLD | TKQETLANVS | AVNYEFDEY | 240 |
| 10 | PSNTSALAKD | FIRRLVVDLP | KCRMTIQDSL | QHPWIKPKDT | QQALSRKASA | VNMEKFKKFA | 300 |
| | ARKGWKQSVR | LISLCQRLSR | SPLSRSNMSV | ARSDDTLDEE | DSFVMKAI IH | AINDDNVPGL | 360 |
| | QHLLGSLSNY | DVNPQNKHGT | PLLIAAGCG | NIQILQLLIK | RGRIDVQCK | GGSNVYVWAA | 420 |
| | RHGHVDTLKE | LSENKCPDVD | KDKSGEMALH | VAARYGHADV | AQVTCASAAQ | IPISRTKEEE | 480 |
| | TPFHCAAMHG | YYSVAKALCE | AGCNVNIKNR | EGETPLLTAS | ARGYHDIVEC | LAEGGADLNA | 540 |
| 15 | CDKDGIALH | LAVRRQMEV | IKTLLSQGCF | VDYQDRHGNT | PLHVACKDGN | MPIVVALCEA | 600 |
| | NCNLDISNKY | GRTPHLAAAN | NGILDVVRYL | CLMGASVEAL | TTDGKTAEDL | ARSEQHEHVA | 660 |
| | GLLARLRKDT | HRGLFIQQLR | PTQNLQPRIK | LKLFHSGSGG | KTTLVESLKC | GLLRSEFFRR | 720 |
| | RPRLSSTNS | RFPSPFLASK | PTVSISINNL | YPCCEVSVR | SREMMFBEGL | TKGMLEVFVA | 780 |
| | PTHHPHCSAD | DQSTKALDIQ | NAYLNGVQDF | SVNEFSGNPV | YFCYDYFAA | NDPTSIRVVV | 840 |
| 20 | FSLEEFYHIG | LNPFVIFNLSF | LKSLVPVEEP | IAPGGKLNK | LQVVLVATHA | DIMNVPRPAG | 900 |
| | GEFGYDKDTS | LLKEIRNRFG | NDLHISNKL | VLDAGASGSK | DMKVLRNHLQ | EIESQIVSVC | 960 |
| | PMTHLCRKH | ISTLPSNRKL | NGFNQLMSLQ | QFVYDVQDQL | NPLASEEDLR | RLAQQLHSTG | 1020 |
| | EINIMQSETV | QDVLLDPRN | LCINVLGKLL | SVETPRALSH | YRGRTVEDI | QRLVPDSVSE | 1080 |
| | ELLQLTDAMD | ICARDLSSGT | MVDVPAIKT | DNLRSHWDE | EDEVMYGGV | RIVPVEHLTP | 1140 |
| 25 | FPOGIFHRVQ | VNLCRWTHQ | STEGDADIRL | WVNGCKLANR | GAELLVLLVN | HQGGIEVQVR | 1200 |
| | GLETEKIKCC | LLLSVCSSTI | ENVMATTLPG | LLTVKHLYSP | QQLREHHEPV | MIYQPRDFFR | 1260 |
| | AQTLKETSLT | NTMGYKESF | SSIMCPGCHD | VYSQASLGMD | IHASDLNLLT | RRLSRLLDPE | 1320 |
| | FDPLGKDWCL | LAMNLGLPDL | VAKYNTNNGA | PKDFLPSPLH | ALLREWTYTP | ESTVGTLMSE | 1380 |
| 30 | LRRLGRRDAA | DLLLKASSVF | KINLDGNGQE | AYASSCNSGT | SYNSISSVVS | R | 1431 |

Seq ID NO: C288 Protein Sequence
Protein Accession #: NP_002072.1

| | | | | | | | |
|----|------------|------------|------------|------------|------------|------------|-----|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 35 | MELRARGWNL | LCMAAALVAC | ARGDPASKSR | SGCEVRQIYG | AKGFSLSDFP | QAEISGEHLR | 60 |
| | ICPGYITCTT | SEMEENLANR | SHAELETALR | DSSRVLQAML | ATQLRSFDDH | FQHLNDSESR | 120 |
| | TLQATFPDAP | GELYTQNRAR | FRDLYSELRL | YYRGANLHLE | ETLAEPFARL | LERLFKQLHP | 180 |
| | QLLLPDDYID | CLGQARALR | PFGEAPRELR | LRATRAFVAA | RSPVQGLGVA | SDVVRKVAQV | 240 |
| 40 | PLQPSCSRVA | MKLVCACBCL | GVPGARPCPD | YCRNVLKGL | ANQADLDAEW | RNLDSMVL | 300 |
| | TDKFWGTSV | ESVIGSVETW | LAEALNALQD | NRETLTAXVI | QGCENPKVNP | QSGPGEKKRR | 360 |
| | RGLAEREREP | PSGTLEKLVF | EAKAQLRDVQ | DFNLSLPGTL | CSEKMALETA | SDRCWNGMA | 420 |
| | RGRYLEPVMG | DGLANQINNP | EVEVDITKPD | MTIRQQIMQL | KIMTNRLRSA | YNGNDVDFQD | 480 |
| | ASDDGSGSGS | | | | | | 490 |

Seq ID NO: C289 Protein Sequence
Protein Accession #: AAH30205.1

| | | | | | | | |
|----|------------|------------|-------------|-------------|------------|------------|-----|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 50 | MIILTYLFL | LWEDTQGWGF | KDGIFPNSIW | LERAAAGVYER | EARSQKYKLT | YAEAKAVCSF | 60 |
| | EGGELATYKQ | LEAARKIGHF | VCAAGHMAKG | RVGYPIVKPG | PNCQSGKGTG | IDYGIKLNRS | 120 |
| | ERWDAYCYNP | HAKSCGGVFT | DPKQIFKSPG | FWNEYEDNQI | CYWHIRLKYG | QRIHLSPLDF | 180 |
| | DLEDDPGCLA | DYVEIYDSD | DVHGFGVGRYC | GDELPPDDIIS | TGNVMTLKFL | SDASVTAGGF | 240 |
| 55 | QIKYVAMDVF | SKSSGQKNTS | TTSTONKNFL | AGRFPSHL | | | 277 |

Seq ID NO: C290 Protein Sequence
Protein Accession #: NP_001973.1

| | | | | | | | |
|----|------------|-------------|------------|-------------|-------------|-------------|------|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 60 | MRANDALQVL | GLLFSLARGS | EVGNSQAVCP | GTINGLSVTG | DAENQVQTLX | KLYERCEVVM | 60 |
| | GNLEIVLTGH | NADLSFLQHI | REVTVGYVLA | MNEFSTLPLP | NLRVVRGTQV | YDGKPAIFVM | 120 |
| | LNNTNNSSHA | LRLRLTQMT | ELSGGVYIE | KNDKLCHMDT | IDWRDIVRDR | DAEIVVKDNG | 180 |
| 65 | RSCPPCHEVC | KGRGNGPGE | DCQTLTKTIC | APQNGHCFCG | PNEPQOCHDE | CAGGCSGPDQ | 240 |
| | TDCPACRHFN | DQACVPRCP | QPLVYNKLT | QLEFNPHETKY | QYGGVCVASC | PENFVVDQTS | 300 |
| | CVACPPDKM | EVDEKGLKMC | EPCCGLCPKA | CEGTSGSRRF | QTVDSNNIDG | FVNCIKILGN | 360 |
| | LDPLITGLNG | DFWHKIPALD | PEKLVFRTV | REITGYLNTQ | SWPFHMFNFS | VFSNLTITGG | 420 |
| | RSLYNRGFSL | LIMKNLVNVS | LGFRSLKEIS | AGRIYISANR | QLCYHESLNN | TKVLRGPTTE | 480 |
| 70 | RLDIKHNRPR | RDCVABQKVC | DPLCSGGGCM | GPFGGQCLSC | RNYSRGGVCV | THCNFLNGEP | 540 |
| | REFAHAEBCF | SCPHCQPMG | GTATCNGSGS | DTCAQCAEPR | DGEHCYSSCP | HGVLGARGPI | 600 |
| | YKYFDVQNEC | RPCHENCTQG | CKGPELQDCL | GQTLVLIGKT | HLTMALTVIA | GLVVIEMMLG | 660 |
| | GTFLYNRGR | IQNKRAMRRY | LERGESIEPL | DPSEKANKVL | ARIFKETHLR | KLKVLGSGVF | 720 |
| | GVHRGQWVIF | EGESYKIPVC | IKVIEDKSGR | QSPQAVTDHM | LAIGSDHAH | IVRLGLGCFG | 780 |
| 75 | SSLQVTVQYL | PLGSLDHEVR | QHRGALGPQL | LLNMGVQIAK | GMYYLEEHGM | VERNLAAARNV | 840 |
| | LLKSFSQVQV | ADFGVADLLP | PDDKQLLYSE | AKTPIKMMAL | ESIEHFGKYTH | QSDVWSYGV | 900 |
| | VWELMTFGAS | PYAGLRLAEV | PDLLKGBERL | AQPQICTIDV | YVMVMKCNMI | DENIREPTFKE | 960 |
| | LANEETEMAR | DPRYLVNIKR | ESGPGIAPGP | EPHGLTNKCL | EEVELEPELD | LDLDLEAEED | 1020 |
| | NLATTTLGSA | LSGPFVGTINR | FRGSGSLSP | SSGYMFMNQG | NLGGSCQESA | VSGSSERCPR | 1080 |
| 80 | PVSLHMPFRG | CLASESEGH | VTGSEAZLQE | KVSMCRSRSR | SRSRPRGDS | AYESQRHGLL | 1140 |
| | TPVTPLSPRG | LEBEDVMGYV | MPDTHLKGTF | SSRBGTLSSV | GLSSVLGTEE | EDEDEEYEM | 1200 |
| | NRRRRKSPFH | PPRPSLLEEL | GVEYMDVQSD | LSASLGSTQS | CPLHPVIMP | TAGTTPDEDY | 1260 |
| | EYMNQRDGG | GFPGDYAAMG | ACPASSQGYE | EMRAFQGPFG | QAPHVHYARL | KTLRLSEATD | 1320 |
| | SAFDNEDYWH | SRLEPKANAQ | RT | | | | 1342 |

Seq ID NO: C291 Protein Sequence
Protein Accession #: NP_001207.1

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5      1      11      21      31      41      51
      |      |      |      |      |      |
      MAPLCPSFWL PLLIPAPAPG LTVQLLLSL LMPVHPQRL PRMQEDSPLG GSSGDDPL 60
      GEEDLPSEED SPREDPPFGE EDLPGEEDLP GEEDLPEVKP KSEEGSLKL EDLPTVEAPG 120
      DPQEPQNNAH RDKGDDQSH WRYGGDPPWF RVSPACAGRF QSPVDIRPQL AAFCPALRPL 180
10     ELLGFLPPL PELRLRNNGH SVQLTLFPGL EMALGPGRFY RALQLHLHWG AAGRPGSEHT 240
      VEGHRFPPEI HVVHLSTAF A RVDEALGRPG GLAVLAAPLE EGPEENSAYE QLLSRLEETA 300
      BEGSETQVFG LDISALLPSD FSRFYQYBGS LTPPCAQGV IWTVFNQTM LSAQLHLTL 360
      DTLWGPQDSR LQLNFRATQP INGRVIEAGF PAGVDSSPRA AEFVQLNSCL AAGDILALVF 420
      GLLFAVTSVA FLVQMRQHR RGRGGSYSR PAEVAETGA 459

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Seq ID NO: C292 Protein Sequence
Protein Accession #: NP_004198.1

```

20     1      11      21      31      41      51
      |      |      |      |      |      |
      MGGAVVDEGP TGVKAPDGGW GMAVLFGCFV ITGFSYAPFK AVSVFFKELI QEFGIGYSDT 60
      AWISSILLAM LYGTGPLCEV CVNRFGCRPV MLVGGLEFASL GMVAASPCRS IIQVYLTTGV 120
      ITGLGLALMF QPSLIMNRY FSKRRPMANG LAAAGSPVFL CALSPLGQL QDRYGNRGGF 180
      LILGGLLLNC CVCAALMRPL VVTAQPGSGP PRFSRLLDL SVFRDRGFVL YAVAASVMVL 240
      GLFVFPVFFV SYAKDLGVED TKAAPLLTIL GFIDIFARPA AGFVAGLGKV RPYSVYLFSP 300
25     SMFPRGLADL AGSTAGDYGG LVVFCIFFGI SYGMVGALQF EVLMAIVGTH KPSAIGLVL 360
      LMEAVAVLVG EPGGKLLDA THVMYVFIL AGAEVLTSSL ILLGNFPCI RKPKSPQPS 420
      VAAAEKKLH KPPADSGVDL REVEHFLKAE PEKNGEVVHT PETSV 465

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Seq ID NO: C293 Protein Sequence
Protein Accession #: NP_000349.1

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30     1      11      21      31      41      51
      |      |      |      |      |      |
      MALFVRLAL ALALALGPAA TLGAPAKSPY QLVLQHSRLR GRQHGFNVCA VQKVIQTNRK 60
      YFTNCKQWYQ RKICGKSTVI SYECCPGYEK VPGEKGCAPAA LPLSNLYETL GVVGSTTTQL 120
      YTDREKLAR EMSEGGSPFI PAPSRRWAS LPAEVLDSL VSNVTLKINA LRYHMGRRV 180
      LTRDLKHMT LRSMYQNSNI QIEHYPNGIV TVNCARLLKA DHHATNGVVH LIDKVIITIT 240
      NNIIQIIEIE DTFETLRAAV AASGLNTMLE GNGQYTLAP TNEAFKIPS ETLNRLGDP 300
      EALRDLNHN ILKSAACABA IVAGLSVETL EGTLEVGCSS GDMLTINGKA IISNKLILAT 360
40     NGVLYIDEL LIPDSAKTLE ELAASDVST AIDLFRQAGL GNLGSGSERL TLLADLNSVF 420
      KDGTPPIDAK TANLLENHII KDQLASKYLY HGQTLBTLLG KKLRFVYVRN SLCTIENSCIA 480
      AHDKRGYGT LFTMDRVLTQ PMGTVMVLK GDNRFSLVA AIQSAGLYET LNRSGVYTVF 540
      APTEAFRAI PPRRSRLIG DAKLANILK YHIGDEILVS GGIGALVRIK SLQGDKLEVS 600
      LKNNVSVNK EPVASEDIMA TNGVVEVITN VLQPTANRPQ ERGDELAOSA LEIFKQASAF 660
45     SRASQREVR LADVYQKLLER MKH 683

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Seq ID NO: C294 Protein Sequence
Protein Accession #: NP_006527.1

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50     1      11      21      31      41      51
      |      |      |      |      |      |
      MTQRSIAGPI CNLKFVTLV ALSSLEPFLG AGVQLQDNGY NGLLIAINPQ VPSNQMLISN 60
      IKEMITEASF YLBNATKREV PFRNIKILIP ATWKANNNSK IQKESYEKAN VIVTDWYBAH 120
      GDDPYTLQYR GCGKEGKYIH FTFNELLNDN LTAGYGSRRG VFVEEWAHLR WGVFDEYAMD 180
      KPFYINGQND IKVTRCSSDI TGIFVCEKSP CPQENCLISK LFKEGCTFIY NSTQDATASI 240
      MFMQSLSSV EFCNASTHNQ EAMLNQMC SLRSAMDVIT DSADPHHSFP MNGTELPPPP 300
      TFSLVQAGDK VVCLNLEVSS KMAEADRLQ LQQAASPYLM QIVEIHTFVG IASVDSKGEI 360
      RAQLHQINEN DRLKLLVSYL PTTVBAKTDI SICSLKCKGF EVVKLNGKA YGSVMILVTS 420
      GDDLLGNCL PTVLSSGSI ESIALGSSAA PNLEELSLT GGLKFFVPDI SNSNGMIDAF 480
60     FRISSTGDI FQHIQLEST GRNVKHHQL KNTVTVDNTV GNDTFLVTV QASGPFELIL 540
      DFDGRKYVT NNPITNLTER TASLWIPGTA KPGHNTYTLN NTHSLQALK VVTTSRASNS 600
      AVPPATVRAF VERDSLEFPH FVMYANVQ GFYFILNATV TATVEPETGD FVTLRLDDG 660
      AGADVIMKG IYSRYFFSFA ANGRYSKLVH VNHSPSISTP AHSIPGSHAM YVPGYTANG 720
      IQMNAKRSV GRNEERKKG FSRVSGGGSF SVLGVFAGPH PDVFPPCKII DLEAVKVEE 780
65     LTLSTAPGE DFDQGSATSY EIRMSKSLQ IQEDFNAIL VNTSKRNPPQ AGIRREIFTS 840
      PQISTNGPEH QPNGETHESH RIYVAIRMO RNSLQHAVSN LAQAPLFIP NEDFVPARDY 900
      LILKGVLTAM GLIGIICLII VVTHRLSRK KRADKKENG T KLL 943

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Seq ID NO: C295 Protein Sequence
Protein Accession #: Bos sequence

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70     1      11      21      31      41      51
      |      |      |      |      |      |
      MKFLILLLQ ATAGCALPLN SSTSLKNNV LFGERYLEKF YGLEINKLPV TKMKYSGNIM 60
      KKKIQEMQHF LQLKVTQLD TSTLENHAP RCGVPDVHHP REMPGGFVWR KXYITYRIN 120
      YTPMNRREDV DYAIRKAFQ WSNVTLKFS KINTGMADIL VVFARGAGD FHFADGKGTI 180
      LAHAFPGSG IGGDAHFED EFWTTHSGGT NLFLTAVHBI GHSGLGHSS DPKAVMPTY 240
      KYVDINTFL SADDIRGIS LYGDPKENR LPMNDNSPA LCDPNLSFA VTVGNKIFP 300
      FKDRFWLKV SERPKTSVNL ISSLNPTLPS GIEAAYEIA RNQVFLFOD KYWLISNLRP 360
80     EENYKSIHS FGPFPFKIKI DAAVFNRPY RYFFVDNQY WRYDERRQNM DPGYPKLITK 420
      NFQIGIPKID AVFYSKNKY YFQGGNQFE YDFLLQRIK TLKSNWFGC 470

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Seq ID NO: C296 Protein Sequence
Protein Accession #: Bos sequence

1 11 21 31 41 51
 5 MKPILLILLQ ATASGALPLN SSTLEKNNV LFGERYLEKF YGLEINKLPV TKMKYSGNLM 60
 KEKIQEMQHF LGLKVTQQLD TSTLEMMHAP RCGVPDVHHP REMPGGPVWR KGYITYRINN 120
 YTPDMNREDV DYAIRKAPQV HSNVTPLKFS KINTGMADIL VVFARGAGSD FFAFDGKGGI 180
 LAHAFGPGSG IGGDAHFDED BFWTHSGGT NLFLTAVHAI GHSLGLGESS DPKAVMPPTY 240
 KYVDINTFRL SADDIRGIQS LYGDPKENQR LPNPDNSEPA LCDPNLSFDA VTTVGNKIFF 300
 PKDRFFWLKV SERPKTSVNL ISSLWPTLPS GIEAAYRIZA RNQVFLFKDD KYMLISNLRP 360
 10 SPNYPKSIHS FGFPNFKKI DAAVFNPRFY RTYFFVDNQY WRYDERRQMM DPGYPKLITK 420
 NFQIGIGKID AVFYSGNKY YFFQGSNQFE YDFLLQIRITK TLKSNSWFGC 470

Seq ID NO: C297 Protein Sequence
 Protein Accession #: NP_008883.1

1 11 21 31 41 51
 15 MAKDNSTVRC FQGLLIFGNV IIGCOGIALT AECIPFVSDQ HSLYPLLEAT DNDDIYGAAN 60
 IGIFVGLCLF CLSVLGIYGI MKSSRKILA YFILMFIVYA FEVASCITAA TQRDFFTNML 120
 20 FLKQMLERYQ NNSPPNDDQ WQNGVTKTW DRLMLQDNCC GVMGPDWQK YTSAPFTENN 180
 DADYFWRQC CVNNNLKEPL NLEACKLGVP GFYHNQGCYE LISGPMNRHA WGVAWFGPAI 240
 LCWTFWLLG TMFYNSRIEY 260

Seq ID NO: C298 Protein Sequence
 Protein Accession #: NP_001784.2

1 11 21 31 41 51
 30 MGLPRGLAS LLLQVCMWLQ CAASEPCRAV FREAEVTLEA GGABQEPGQA LGKVFMCQCPG 60
 QEPALFSTDN DDFTVRNGET VQERRSLKER NPLKIPFSKR ILRRKRWDW VAPISVPENG 120
 KBPPFQRLNQ LKSNKDRDTK IFYSITGPGA DDPPEGVFAV EKETGWLLEN KPLDREELAK 180
 YELFGHAYSE NGASVEDPMN ISIIVTDQND HKPKFTQDTF RGSVLGVLV GTSVMQVTAT 240
 DEDDAIYTN GVVAYSISHS EPKDPEDLMF TIHRSTGTIS VISSGLDREK VPFTYLTICA 300
 35 TDMDGSGSTT TAVAVVEILD ANDNAEMFDP QKYEARVPEM AVGHEVQRLT VTDLDAPESP 360
 AWRATYLMG GDDGDHFTIT THPESNQIIL TTRKGLDPEA KNQHTLYVEV TNEAPFVLKL 420
 PTSTATIVVH VEDVNEAPVF VPFSKVVEVQ BGIPTGEFVC VYTAEDDEKE NOKISYRILR 480
 DPAGWLAMP DSGQVTAVGT LDREDEQFVR NNIYEVNULA MINGSPPTTG TGTLTLTID 540
 VNDEGPVPEP RQITICNQSP VRQVLNITDK DLSPTISFPQ AQLTDEDIY WTAEVNNEGD 600
 40 TVVLSLKEFL KQDTYDVHLS LSDHGNKEQL TVIRATVCDG HGHVETCFPG WKGGFLLPVL 660
 GAVLALLFLL LVLLLLVRKK RKIKFPLLE EDDTRDVFY YGREGGGEED QDYDITQLHR 720
 GLEARFEVVL RNDVAPTILP TMYRPRPAN PDEIGNFIE NLKAANTDPT APFYDTLLWF 780
 DYEGSGSDAA SLSSLTSSAS DQDQDYDYLN SWGSRFKKLA DMYGGGEDD 820

Seq ID NO: C299 Protein Sequence
 Protein Accession #: NP_005620.1

1 11 21 31 41 51
 50 MAKSAENGI YSVSGDEKKK FLIAPGEDGA PAKGDGPVGL GTPGGRLAVP PRETWTRQMD 60
 FIMSCVGFV GLGNVWRFPY LCTKNGGQVP LIPYVLIALV GGIPIFPLKI SLGQPMKAGS 120
 INWNICPLF KGLGYASMI VFYCNTYYIM VLAAGFYLV KSFITTLFWA TCGHTWMTPD 180
 CVELFREEDC ANASLANLTC DQLADRSFP ISFWENKVLK LSGGLEVEGA LNWVTLCLL 240
 ACWLVYPCV WKGVKSTGKI VYFATFPYV VLVVLLVRGV LIPGALDGI YLKPFDWSKL 300
 55 GSPQVNDAG TQIFFSYALG LGALTALGSY NRENNNCYKD AILALINSQ TSFPAFVVF 360
 SILGFWAAEQ GVHISKVAES GPGLAPIAYP RAVTLMFVAP LWAALFFPML LLLGLDSDQV 420
 GVBSFITGLL DILPASYYFR FQRISVALC CALCFVIDLS MVTGGMYVF QLFDYYSASG 480
 TTLWQAFNE CVVAVVYGA DRFMDIACM IGYRCPWMK WCNSEFTPLV CMGIFILENV 540
 YYEPLVINNT VYFVWGRAM GWAFALSSML CVFLHLLGCL LRAGTMAER NQHLTQPTWG 600
 60 LHLHLETRAQD ADVRGTLTIT PVSESSKVVV VESVM 635

Seq ID NO: C300 Protein Sequence
 Protein Accession #: NP_006507.1

1 11 21 31 41 51
 65 MEPSSKLLTG RLMLAVGGAV LGSLOPGYNT GVINAPOKVI BEFYNQTVWH KYGESILPFT 60
 LTLNLSLVA IFSGGGMIGS FSVGLFVNRX GRENSMLMMN LIAFVSAVIM GFSKLGSBFE 120
 MLILGRFIIG VYCGLTTFGV PMYVGEVSPT AFRGALGTLH QLGIVVGILI AQVFGLDSDIM 180
 70 GNDLWPLLL SIIFIPALLQ CIVLEPCFES PRFLINRNE ENRAKSVLEK LRGTDVTEQ 240
 LQEMKESRQ WREKKVTL ELFRSPAYRQ PILAVVLIQ SQQLSGINAV FYYSTSIFEK 300
 AGVQPVYAT IGSQIVNTAF TVVSLFVVER AGRRTLELIG LAGMAGCAIL MTIALALLEQ 360
 LPNMSTLSIV ALFGFVAFB VGPQPIPMFI VAKLFSQGPR PAIAVAGFS NWTGNFIVGM 420
 CFQVVEQLCG FVYFIIFTVL LVLFIFTYF KVPETRGRTF DEIASGFRQG GASQSDKTFE 480
 75 ELFHPLGADS QV 492

Seq ID NO: C301 Protein Sequence
 Protein Accession #: XP_035292.2

1 11 21 31 41 51
 80 MAGAGPKRRA LAPAAEKEE EAREKMLAAK SADGSAPAGE GEGVTLQRNI TLLNGVAIIV 60
 GTIIGSGIFV TPTGVLEKAG SPGLALVVNA ACGVFSIVGA LCYAEIGTTI SKSGEDYAYM 120
 LEVYGSLEAF LKLWIELLI RPSSQYIVAL VFATYLLKPL PFTCPVPEEA AKLVACLVL 180
 LLTAVNCYBV KAATRVQDAF AAKLLALAL IILLGFVQIG KGDVSNLDEN FFSFGTKLDV 240

GNIVLALYSQ LFAYGQWNYL NFVTEEMINP YRNLPALIII SLPIVTLVYV LTNLAYFTTL 300
 STEQMLSSBA VAVDFQNYHL GVMWSLIPVF VGLSCFQSVN GSLFTSSRLF FVGSREGHLP 360
 SILSMIHQPL LTPVPSELVFT CVMTLLYAFS KDIFSVINFF SFFNWLCAVAL AIGMIWLKH 420
 RKPLERPIK VNLALPVFFI LACLFLIAVS FWKTEVECGI GFTIILSGLP VYFFGVWVKN 480
 KPKNLLQGIQ STTVLCQKLM QVVPQET 507

Seq ID NO: C302 Protein Sequence
 Protein Accession #: NP_005259.1

1 11 21 31 41 51
 MNWSIFEGLL SGVKNYSTAF GRIWLSLVFI FRVLVYLVT A ERVNSDDEKD FDCNTRQPGC 60
 SNVCDFEFPF VSHVRLWALQ LILVTCPSLL VVMVAYREV QEKRRREANG ENSGRLYLNP 120
 GKKGGLMWT YVCSLVFKAS VDIAPLYVFH SFYPKYILPP VVKCHADFCP NIVDCFISKF 180
 SEKNIFTLEF VATAAICILL NLVELIYLV S KRCHECLAAR KAAQAMCTGHH PHGTTSSCKQ 240
 DDLSSGLIF LGSDSHPPLL PDRPRDEVKK TIL 273

Seq ID NO: C303 Protein Sequence
 Protein Accession #: NP_005121.1

1 11 21 31 41 51
 MKICSLTLLS FLLLAQVLL VEGKKVKNG LHSKVSEQK DTLGNTQIKQ KSRPGNKGKF 60
 VTKDQANCRW AATQEEGIG LKVECTQLDH EFSCVFAGNP TSCLKLKDER VYWKQVARNL 120
 RSQKICRYS KTAVKTVCR KDFESSLKL VSTLEGNK PRKEKTEMSP RBHIKQKETT 180
 PSSLAVTQM ATKAPCEVED PDMAQRKTA LRFQGETWSS LCTFFLSIVQ DTSC 234

Seq ID NO: C304 Protein Sequence
 Protein Accession #: AAH22542

1 11 21 31 41 51
 MCSEILLRQE VLKDGFRDL LKVKPGESI EDLHTCRLLI KQDIPAGLYV DPELASLRE 60
 RNITEAVMVS ENFDIBAPNY LSKESVLIY AREDSQCIDC FQAFPLVHCR YHRPHSEDEG 120
 ASIVVNNPDL LMFCDQAGSR RMIRFRFDSF DKTIEFPIK CWAHSEVAAP CALENEDICQ 180
 WNMCKYKSVY KNVILQVPV LGTVHTSLVCS VTLLITILCS KKKKK 225

Seq ID NO: C305 Protein Sequence
 Protein Accession #: NP_004985.1

1 11 21 31 41 51
 MSLWQLVLV LVLGCCFAA PRQRQSTLVL FPGDLRTNLT DRQLAEEXLY RYGYTRVAEM 60
 RGESKSLGPA LLLQKQSL PETGELDSAT LKAMRTPRCG VPDLGRFQTF EGDLMKHEN 120
 IYTWQNYSE DLPRAVDDA FARAPALWSA VTPLTFTVY SEDADIVIQF GVAEHDGQYP 180
 FDGKGLLAH AFPPGPGIQG DAHEDDDELW SLGKGVVVT RFGNADGAAC HFFPIFGRS 240
 YSACTIDGRS DGLFWCSTTA NYDTDDRFGF CPSERLYTRD GNADGKPCQF PFIQGGQSYS 300
 ACTTDGRSG YRWCATANY DRDLFGFCP TRADSTVMGG NSAGELCVFP FTPLGKEYST 360
 CTSEGRGDRG LKCATNSFD SKKNGFCFD QGYSPLVAA BEFGHALCLD HSSVPEALMY 420
 PMKRTGEGP LHKDDVNGIR HLYGPRPEPE PRPPTTTTPQ PTAPTVCPT GPPTVHPSE 480
 PTAGTGPFS AGPTGPTAG PSTATTVPLS FVDDACNVNI PDAAIEIGNQ LYLEKDGKYW 540
 RFSEGRGSRP QQPFLIADKW PALPRKLDV FEEPLSKLF FESGRQVWVY TGASVLGPRR 600
 LDKLGLGADV AQVIGALRSR RGMMLFSGR RLNRFDVKAQ MVDPRASAEV DRMEFPGVFLD 660
 THDVPYREK AYFCQDRFYW RVSSRSEINQ VDQVGYVTYD ILQCPED 707

Seq ID NO: C306 Protein Sequence
 Protein Accession #: NP_000204

1 11 21 31 41 51
 MAGPRPSPWA RELLAAALISV SLSGTLANRC KKAPVKSCTE CVRVKDCNY CIDEMFRDRR 60
 CNTQABELLA GCQRESIVVM ESSQIYEST QIDTTLRRSQ MSPQQLRVRL RPEERHFEL 120
 EVFEPLSPV DLYILMDFSN SMSDDLNLK KMGQNLARVL SGLTSDYTIG PGKYVDKVS 180
 PQIDMRPEKL KEFWNSDPP FSPKNVISLT EDVDEFENKL QGERISGNLD APEGGFDAIL 240
 QTAVCTREDIG WRFDSTLLV PSTESAFHYE ADGANVLAI MERNRCHL DTGTYYTQYR 300
 TQDYPSVPTL VRLAKHNI PIFAVTNYSV SYYEKLITYE FVSSLGVLQE DSSNIVELLE 360
 BAPNRIRSNL DIRALDSPRG LRTEVTSNMF QKTRTGSFHI RRGVGIYQV QLRALHVDG 420
 THVCQLPEDQ KGNHLKPSF SDGLEMDAGI ICDVCTCELQ KEVRSARCSF NGDFVCGQCV 480
 CSBGHSGQTC NCSTGSLSDI QPCLEBEGDK PCSGRGECQC GHCVCYBSGR YEGQFCEYDN 540
 FQCFTSGFL CNDRGRCSMG QCVCEPGWTG FSCDCPLSNA TCIDSNNGIC NRGHCCEGR 600
 CHCEQSLMT DTICETINSA IHPGLCEDLR SCVQCQAWGT GEKKGITCE CNFKVMVDE 660
 LKRAEEVVVR CSFREDDED TSYXTMEKDG APGPNSTVLV HKKKDCPPGS FWWLIPLLL 720
 LPLALLLL LCKYCACCK ACLALLPCCN RGHMVGFKED HYMLRENMA SDHLDTPLR 780
 SGNLKGDDV RNVKNNMQR PGFATHAASI NPTSLVPYGL SLRLARLCTE NLLKPDTRC 840
 AQLRQVEEN LNEVYRQISG VHKLQQTFR QQPNAKQKD HTIVDTVLA PRSAKPAALK 900
 LTBKQVEQRA FHDLVARGY YTLADQDAR GMVEFQEGVE LVDVRVPLFI RPEDDEKQL 960
 LVEAIDVFA TATLGRRLVM ITIIEKQARD VVSFBQPEFS VSSGDQVARI PVIREVLDDG 1020
 KSQVSXRTQD GTAQGNRDYI FVEGELLQFP GEANKELQVK LLEIQEVDNL LRGRQVRRFH 1080
 VQLSNPKFGA HLQPHSTTI IIRDPDELDR SFTSQMLSSQ PPFEGDLGAP QNPNAKAAGS 1140
 RKIHFNWLP SKGPMGYRVK YWIGDSESE AHLSDSKVPS VELTNLYPYC DYEMKVCAG 1200
 AQSGPYSSL VSCRTGVEVP SEPGRFAFNV VBSTVTQLSW AEPATNGEI TAYEVCYGLV 1260
 NDDMRPIGPM KKVLDNPNK RMLLHNLRE SQPKRYTVKA RAGACWGPFR BAINLATOP 1320
 KRPMSPILIP DIPVIDAQSG EDYDSFLMYS DDVLRSPSGS QRPVSDDTG CGWKFEPLLG 1380
 BELDLRRVTW RLFPFELIPRL SASSGRS6DA EAPTAPRTTA ARAGRAAAVF RSATGPPGE 1440

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|-------------|------------|------------|------------|------------|------------|------|
| HLVNGRMDF | FPFGINSIHR | MITTSAAAYG | THLSPEVPHR | VLSTSSLTIR | DYNSLTRSEH | 1500 |
| SESTTLPRDY | STLTSVSSHD | SRLTAGVPT | PTRLVFSALG | PTSLRVSWQE | PRCERPLQGY | 1560 |
| SVVEYQLNGG | ELHRLNINP | ACTGVVVEDL | LPNHSYVFRV | RAQSQSGWGR | EREGVITIES | 1620 |
| QVEPQSPCLCP | LFQSAFTLST | PSAPGFLVFT | ALSPDSLQLS | WERPRRPNGD | IVGYLVTCEN | 1680 |
| AQGGGPATAF | RVDGDSPEER | LTVPGLSENV | PYKFKVQART | TEGPGPEREG | IITIESQDGG | 1740 |
| PFQQLGSRAG | LFQPLQSEY | SSITTTTSTA | TRKFLVDGLT | LGAQHLEAGG | SLTRHVTQEF | 1800 |
| VSRTLTSTGT | LSITMDQOFF | QT | | | | 1822 |

Seq ID NO: C307 Protein Sequence
Protein Accession #: NP_076404.1

15
20

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|------------|------------|-------------|-------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MGENLTIAKL | PNNELEHQES | RNSGNRSDGP | GKNTTLENEF | DTIVLEVLVL | IIFVASILLN | 60 |
| GLAVWIFFHI | RNKTSFIFYL | KNIVVADLIM | TLTFPPFRIVH | DAGFGPWYFK | FILCRYTSVL | 120 |
| FTANMYTSIV | FLGLISIDRY | LKVVKPPGDS | RMYSITFTKV | LSVCVWVIMA | VLSLPNILIT | 180 |
| NQOPTEDNIH | DCSKLKSPLG | VKNHTAVTVV | NSCLFVAVLV | ILIGCYIAIS | RYLHKSRRQP | 240 |
| ISQSSERKRG | NQSIKVVAV | PFTCFPLPYHL | CRIFPTFSBL | DRLLDESAQK | ILYYCKEITL | 300 |
| FLSACNVCLD | PIIYFFMCRS | FSRRLFKKGN | IRTRSESIRS | LQSVRRSEVR | IYYDYTIV | 358 |

Seq ID NO: C308 Protein Sequence
Protein Accession #: NP_065840.1

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|-------------|------------|------------|-------------|-------------|------------|------|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MVRCLEGLAVL | SLVISQGAGG | RGKPEVVBVV | GRAEESVVLG | COLLPPAGRP | PLHVIEWLRF | 60 |
| GFLLPIFIQF | GLYSFRIDED | YVGRVRLQKG | ASLQIEGLRV | EDQGNIECKV | FFLDQHIFED | 120 |
| DFANGSVVHL | TVNSPPQQOE | TPPAVLEVOE | LEPVTILRCVA | RGSPLPHVIV | KLRGKDLQGG | 180 |
| QQQVQVQNT | LRIRRVERGS | SGVYTCQASS | TEGSATHATQ | LLVLGGPPVIV | VPPKNTSTNA | 240 |
| SQDVSLACHA | EAYPANLYFS | NFQDNINVEH | ISRLQPRVQI | LVDGSLRLLA | TQDDAGCYT | 300 |
| CVPSNGLLHP | PSASAYLTVL | CMGVIKCPV | RANPILLFVS | WTKDGKALQL | DKFFGWSQGT | 360 |
| EGSLILALGN | EDALGEYSCT | PYNSLGTAGP | SPVTRVLLKA | PPAFIERPKE | EYFQEVGREL | 420 |
| LIPCSAQGGP | PPVVSMTKVG | RGLQCGAQVD | SNSSLLRLPL | TKRAGHNEC | SASAVARVA | 480 |
| TSTNVVVLGT | SPHVTVNVS | VALPKGANVS | WEPGFDGGYL | QRFSVWYITPL | AKRFDREHHD | 540 |
| WVSLAVPVGA | AHLLVPGLQP | HTQYQFSVLA | QNKLGSGPFS | EIVLSAFEGE | PTTPAAEGLE | 600 |
| PTEIPFPLSP | PRGLVAVRTP | RGVLLRWDP | ELVPRKLDGY | VLEGRQGSQG | WEVLDPVAVG | 660 |
| TTELLVPLGL | LKDVLYBFR | VAFAGSFVED | PSKTNVST | GLEVPSTRTQ | LPGLLPQFVL | 720 |
| AGVVGVCFL | GVAVLVSLA | GCLNRRRAA | RRRRKRLQD | PPLIFSPITGK | SAAPSALGSG | 780 |
| STDSVAKLKL | QOSPVPSIRQ | SLLWGDPAQT | PSPHDPDPSS | RGPLPLKPIK | RGPDGRFVMG | 840 |
| PTVAAPQERS | GREQASPTPT | AQRLARSFDC | SSSSPSGAPQ | PLCTIEDISPV | APPPAAPPPS | 900 |
| LPFGPGLLYQ | LSLPPFRZMN | VDGDWPFLEE | PSAAPPDYM | DTTRCPTSSS | LRSPETFPVS | 960 |
| PRESLPGAVV | GAGATASFPY | TALADWTLRE | RLLEGLLPAA | PRGSLTSQSS | GRGSASFRLP | 1020 |
| PSTAPAGGS | YLSAPAGDTS | SNAGSPERWP | RREEVTVSK | RRNTSVDEMY | ENDSEFPQDM | 1080 |
| KLETLHLGL | ASSRLRPEAE | TELGVKTPSE | GCLLNTAHVT | GPEARCAALR | EEPLAFRRRR | 1140 |
| DATRRLPAY | RQPVFHPQA | TLG | | | | 1163 |

Seq ID NO: C309 Protein Sequence
Protein Accession #: NP_065840.1

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|------------|------------|-------------|-------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MLTKPLQSPF | APPGITPTPP | GKDRERAEFA | EYRLGPIILGK | GGFGIVFAGH | RLTDRLQVAI | 60 |
| KVIPKRVVLG | WSPLSDSVTC | PLEVALLMKV | GACGGHFGVI | RLLDWFETQE | GFMLVLRLPL | 120 |
| PAQDLFDYIT | EEGPILEGPS | RCFFQGVVAA | IQHCHSRGVV | HRDINDENIL | IDLRRCGAKL | 180 |
| IDFGSCALLH | DEPYTDVGT | RVYSPPEWIS | RHQYHALPAT | VNSLGILLYD | MVCGDLPFER | 240 |
| DQKILEAEHL | PPAHVSPDCC | ALIRERCLAPK | P6SRPSELEH | LLDPWMQTPA | EDVTPQFLQR | 300 |
| RPCPFLGLVA | TLSLAWFGLA | PNGQKSHFMA | MSQG | | | 334 |

Seq ID NO: C310 Protein Sequence
Protein Accession #: NP_062501.1

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70
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|------------|------------|------------|------------|-------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MECLYYFLGF | LLLAARLPLD | AAKRFDHVLG | NERPSAYMRE | HNQLNGWSSD | ENDWNEKLYP | 60 |
| VNRKGRDMRK | NSWKGGRVQA | VLTSDSPALV | GSNITFAVNL | IFPRQKEDA | NGMIVYEKNC | 120 |
| RNEAGLSADE | XYVNTAWSE | DSGNGTGTQ | SHENVFEDGK | PFPHEPQWR | WNFIYVFTIL | 180 |
| GQYFQKLGRC | SVRVSVNTAN | VTLGSQLMEV | TVYRRHGRAY | VPIAQVKDIVY | VVTDQIPFV | 240 |
| TMFQKDRNS | SDETFLKDL | IMFDVLHDP | SHFLNYSTIN | YKWSFGDNTG | LFVSTNHTVN | 300 |
| HTVVLNGTFS | LMLTVKAAAP | GPCPPPPPPP | RPSKPTPSLG | PAGONPLELS | RIPDENQIN | 360 |
| RYGHFQATIT | IVEGILEVNI | IQMTDVLMPV | PNPESLIDF | VVTCQSGIPT | EVCTIISDPT | 420 |
| CEITQNTVCS | PVDVDEMCLL | TVRRTFNGSG | TYCVNLTLGD | DTSLALITSL | ISVPRDRPAS | 480 |
| PLRMANSLI | SVGCLALFVT | VISLLVYKX | KEYNPISNSP | QNVVRSKGLS | VFLWRAKAVT | 540 |
| FPGNQSKDPL | LKNQEFKGV | | | | | 560 |

Seq ID NO: C311 Protein Sequence
Protein Accession #: Eos seq

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|-------------|------------|------------|------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| NRILKRLPLAC | IQMLCVCRID | WANGYYRQOR | KLVERIGWSY | TGALNQKRWG | KKYPTCNSPK | 60 |
| QSPINIDEDL | TQVNVNLLKL | KPQGWKITS | ENTFIENTGK | TVREINLNDY | KVSGGVSEMV | 120 |
| FKASKITTFW | GKCNSSDGS | EHSLBQKFP | LEMQIYCFDA | DRFSSFERAV | KKGKLRALS | 180 |
| ILFEVGTSEN | LDFKAIIDGV | ESVSRFGKQA | ALDPFILLNL | LENSTDKXYI | YNSLTSFPPC | 240 |
| TDIVDWIVPK | DTVSISESQL | AVFCSVLTMQ | QSGYVLMMDY | LQNNREBQQY | KFSRQVFSY | 300 |

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|----|-------------|-------------|-------------|-------------|------------|-------------|------|
| 5 | TGKEIIEHAV | CSEEPENVOA | DPENYTSLLV | TWERPRVVYD | TMIEKFAVLV | QQLDGEDQTK | 360 |
| | HEFLTIDGYQ | LQAILNNLPL | NMSVYVLQVA | ITCINGLYGY | SDQLIVDMPT | DNKDFOLFFE | 420 |
| | LIGTEIE IKE | EEEGKDI EEG | AIVNPERDSA | TQVTRKKEPQ | ISTTTHYNRL | GPKYNEAKTN | 480 |
| | RSPTRTOSEF | GKQDVTEBSL | NSTSQPVTKL | ATEKDISLTS | QVITTELEPH | VEVTSASLND | 540 |
| 10 | GSKTVLRSPH | MNLGSATBSL | NVTSITETEE | ESLTSFKLSD | TGAEDESGGS | PATSALPIPI | 600 |
| | ENISQQVYIF | SENFETITVD | VLIPEASARNA | SEOSTSGGSE | ESLKQPSMBG | NWYFSSSTDI | 660 |
| | TAQDFVGSGR | ESFLQITWYE | INVDESEKTT | KSFSGAGEVMS | QHSYFVTDLE | PHYTSFAFPF | 720 |
| | TEVTPHAFPT | SSRQQDLVST | KVVVYSQTIT | PVYNBASNMS | HESRIGLAGE | LESEKKAIVP | 780 |
| 15 | LVTVASLTFI | CLVVLVGLIL | YHRKQCPTAE | PLYEDESTSP | VITPPTPIPT | PISDVGGAIP | 840 |
| | IKHFPKHVAD | LHASSGFTBE | FEEOGQCTVD | FGITADSSNE | FDNKHKNRYI | NI VAYDESRV | 900 |
| | KLQAQLAEGQ | KLTDYIINANY | VDGVNRPKAP | IAAQGFLPKST | AEDFWRMIVE | HNVEVIVMTI | 960 |
| | NLVEKGRKKC | DQYVWADGSE | EYGNFLVTVQ | SVQVLAYTVT | RNFVLRNTKI | KKGSQKGRPS | 1020 |
| 20 | GRVVTQYHYT | QWPDMDVPSE | SLPVLTFVRK | AAYAKRHAVG | PVVVHCSAGV | GRGTGYTIVD | 1080 |
| | SMLOQLIQHG | TVNI FQFLKH | IRSQRNVLVQ | TEQYVVFTHD | TNVEALILSE | TEVLDSHITHA | 1140 |
| | YVWALLQPSG | AGKTKLEKQF | QLLSQSNYIQ | SDBYBAALQV | NRESKNTFSI | IFEVRBSRVI | 1200 |
| | SSLSGEGTDY | INASYIMGYV | QNEPFIITQH | PLLETIKDFW | RMWIDENAZL | VVMIPDGMQV | 1260 |
| | AEDSFVWYFN | KDFPINCESS | KVTLMAEHEK | CLMNEEKLLI | QDFILEATQI | DVLEVRHHPQ | 1320 |
| | CPKWFNPDSP | ISKTFELISV | IKESAANRDG | PMIVDEHGGV | VTAGTSCALT | TLMHQLEKEN | 1380 |
| | SDVSVYQAKM | INLMRPGVFA | DTEQQQFLYK | VILSLVSTRQ | ERNPSTSLDS | NGAALPDGNI | 1440 |
| | AEBSLESLV | | | | | | 1440 |

Seq ID NO: C312 Protein Sequence
Protein Accession #: XP_031379

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|----|-------------|-------------|-------------|-------------|-------------|-------------|------|
| 25 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | MRILERFLAC | IQLLCVCRID | WANGYYRQQR | KLVEBIGWSY | TGALNQKNWG | KKYPTCNSPK | 60 |
| | QSPINIDEDL | TQVNVNLKGL | KFGQWDKTSL | ENTPIHNTKG | TVESINLTNDY | RVSGGVSEMV | 120 |
| 30 | FKASKITFHN | GKCNMSSDGS | EHSLGQKFP | LEMQYICFDA | DREBSFEABV | GKGKGLRALS | 180 |
| | ILFBSVGTEN | LDFKALIDGV | ESVSRFGKQA | ALMDFLILNL | LPMSTDKXYI | YNGELTSPCC | 240 |
| | TTDTVDWIVK | DVYSIESBQA | APFCSEVLTML | QSGQVWMLMD | LQNNFREQQY | KQSPQVSSSY | 300 |
| | TEKEIKHFAV | CSSEFENVQA | DFNCTSLIV | TNERPRVVYD | TLMIKEFAVL | KFLDGEDQTK | 360 |
| | HEFLTDGYQD | LGAALLNLLE | NMSYVLQVSA | ICTNGLYGKY | SDQLIVDMPT | DNPELDLFFE | 420 |
| 35 | LIGTESIIKE | EBEKGDLIEG | ALNPNGRDGA | TNQIRKRPQ | ISITTEYWRJ | QJYKNEAKTN | 480 |
| | RSPTRGSEFS | GKGDVPMTEL | NSTSQVPTKL | ATEKDISLTS | QTVTELPFST | VEGSTBASIND | 540 |
| | GSKTVLRSPH | MNLSGTSEST | NTVSYITEYE | ESLITSFKLD | TGAEDSSGSS | PATSAPFIFIS | 600 |
| | ENIBQQVYIS | SENPTETIYD | VLIPESARNA | ESDSTSSGSS | ESLKDPSMSG | NWFPSSDTDI | 660 |
| | TAQPDVGGSR | ESFLQNTNYE | IRVDESEKTT | KFGSAGPVMS | QGPSTVDMLE | PHYSTFATFPY | 720 |
| 40 | TEVTFHAPFT | SSRQQLVST | VWVYVSQITQ | PVYNGETPLQ | PBSYSSVFLP | PLYLLLDQIK | 780 |
| | ILTPVAAGSS | DSALHATFVF | PSGVDSFSES | LSYSDGAPIL | PFSSAGSFSSR | EPFHLHTVSQ | 840 |
| | LNQVTSATE | SOKVPLHNAS | PVAGGOLLLE | PSLAQYSIDL | STHATHASEL | EPFGSSGVLY | 900 |
| | KTLMFQSQVE | PSSDAMMHAR | SSGPEPSYAL | SDNEGSGRIF | TVSYSSAIPV | HDSVGVITYQG | 960 |
| | SLFSGSPSHI | LPKSSLITPT | ASBLQPTRAL | SGDGQWSGAS | DSSEFLLEDT | MGMTALNTSS | 1020 |
| 45 | PVSVAEFTYT | TPVPEODNKA | LEKSKITYGN | ETELQIPBSN | ZMVPSPBSTV | DEZLVNDVNMK | 1080 |
| | KNLQSANSEV | SISSTKGMFP | GLSLATETTKV | FDHEISQVPE | NMFPVQPTTT | VQSQAQSTPL | 1140 |
| | LPVSLQATEP | ASSDPASSEM | LPSPQQLPY | ETSASFSTEV | LLPFSQPSAD | VDTLTKLTVL | 1200 |
| | AVPDEILIVE | TPKVDKTSST | MLHLIVENGA | BSENMGHSTS | VPVFTDVSTPS | HMBASLQSLD | 1260 |
| | TIYSASEKYE | PVLKSSBSST | QVVPISLYSD | ELFQTNALTE | NQAHFPPGKRH | VFATPVLISID | 1320 |
| 50 | KEFLNTILNKL | LHSDEILSTH | KSVSPKQVFA | GIPTVASDTF | VSDTHSVPIG | NGHVAITAVS | 1380 |
| | PHRDQSVTST | LKLSPKSTAS | KLEHSAKSDA | GLVGGGEDGD | TDDGDGDDDD | DRDQSLGSLH | 1440 |
| | KCMSCSSVRE | SQRKVMNDSI | THENSMDQNP | NFISYSLSEN | SEEDNRTVTS | SDSGSQGMGR | 1500 |
| | SPGKSPSANG | LQKHNDGKE | ENDIQTSGLT | LPFLSPESKAN | AVLTSDEESG | SCQGTSDSELN | 1560 |
| | ENETSTDFSF | ADTNKDGSAI | LAAAGDSATL | POFPQSPSTSS | VTGSENSVEH | VSEABASNSV | 1620 |
| 55 | RESRJGLAEG | LESDKKAVIP | LIVLSALTEFI | CIVVLVGLII | YWRKCFQTAH | FVLEOSTSPR | 1680 |
| | VISTPPTPIF | PISDDVGAAT | IKHFPKAEVD | LHASSGFTTE | FETLKEFTYQ | VQBSTVDLGI | 1740 |
| | TADSNRPDNP | KHKRYNTIV | AYDHSRVKLA | QLAEKDGLKT | DYINANVDBG | YNRPKAYITAA | 1800 |
| | QGPLKSTADE | FRWMLIWEIN | KVJVMITNLV | EKKRKRCDQY | WPADGSESKY | NFLVPTQKSAV | 1860 |
| | VLAYITVBRN | TLRNTEKIKKG | SQRNKESNGV | VTQYHYTQW | DMGVSESYSLP | VILFVFRKAAV | 1920 |
| 60 | AKRHVAGTVL | VBCSAGVGET | GTVIIVLDSML | QQIQBEGVTN | IFGLFKILRS | QRNYLVQSTY | 1980 |
| | QYVFHIDTIV | BAILSKETEV | LDSHIHLADN | ALLIPGPAK | TLKBEKQOLL | SGNTIQQSDY | 2040 |
| | SAALKQCNRE | KMRTSSIIFF | ERBSVQISSL | SGEGTDYINA | SYIMGYTQSN | EFIIITQBPLL | 2100 |
| | HTIKDFWAMI | WDRNAQLVVM | IPDGQNMKDE | EFVYWNKDE | PIINCSFSKVT | LMAREHKKLS | 2160 |
| | NEEKLITQAE | TLAETQDDYV | LEVRQHPQCPK | WNPDSPIK | TFELISVIKE | EAANRDGPMT | 2220 |
| 65 | VHDESGOZTA | GTFCALITLV | HQLEKENSVD | VYQVAKMNL | MRPGVFADIE | QYQFLYKVL | 2280 |
| | SLVSTROEN | PSTSLDSNGA | ALPDGNAIES | LESLV | | | 2340 |

Seq ID NO: C313 Protein Sequence
Protein Accession #: NP_002842

| | 1 | 11 | 21 | 31 | 41 | 51 | |
|----|------------|------------|-------------|------------|-------------|------------|-----|
| 70 | MRILKRFLAC | IQLLVCVRLD | WANGYYRQOR | KLVEEIGWSY | TGALNQKNWG | KKYPTCNSPK | 60 |
| | QSPINIDEDI | TQVNVNLKKL | KFQGWDKTSL | ENTFIHNTGK | IVEINLNDY | RVSGGVSEMV | 120 |
| | FKAKSKITFW | KGNMSSSDGS | KESLEGQKFP | LEPMQYCFDA | DEFSSFERAV | KGSKLKLRLS | 180 |
| 75 | ILFEVGTTEW | LDFKAIIDGV | ESVSRFGKQA | ALDPFTLLML | LENSDKKYI | YNSBLTSPFC | 240 |
| | TDTVNDIVFX | DTVSISESQL | AVFCFVIMTQ | QSGYVVMMDY | LQNNFREQQY | KFSRQVFSY | 300 |
| | TGKEEIHAEV | CSSEPENWQA | DPENYITSLV | TWSPRVVYD | TMIEKFVILY | QGLDQGEQTK | 360 |
| | HEFLTDGYQD | LGAALNNLPL | NMSYVLQIVA | ICTINGVGYK | SDQLLVDMET | DNPELDLPEE | 420 |
| | LICTEILIXE | KEEKGIDIEG | AIVNPGRDISA | TQIRKNEPT | ISTTHYNIKI | GTNKEAKTV | 480 |
| 80 | RSPTSGSEFS | KGQDVETSLS | NSTSQPVTKL | ATEKDISLTS | QVTTELPHPT | VEGTSASLND | 540 |
| | GSTVGLRSPH | MNLGSGAESL | NVTSITXEYE | BSLLTSFCLK | TGAEDSGSSG | PATSAIPFIS | 600 |
| | ENISQQYLFS | SENPTITVYD | VLPESARNA | SEDSSTSGSE | ESLKDESMRG | NWVFPSSDIT | 660 |
| | TAQPDVGSGR | ESFLQTNYTE | IVVDESEKIT | KSPSGAVPMS | QGPSTVDLGM | PHYSTFAKPY | 720 |
| | TEVTHAPPT | SRRODILVST | IRNVEYOTTO | PVYNAAEASN | SHISSHIGLAS | GLEBEKAKVI | 780 |

PLVIVSALT ICLVVLVGL IYWRKCFQTA HFYLEDSTSP RVISTPPTPI FPISDDVGAI 840
 PIKHPFKHVA DIHASSGFTE EFETLKEFYQ EVQSCVVDLG ITADSSNHPD NKHKRYINI 900
 VAYDSRVKL AQLAEKDGKL TDYINANYVD GYNRPKAYIA AQGPLKSTAE DFWRMIWEHN 960
 5 VEIVMITNL VEGRRKCDQ YWPADGSEY GNFLVTQKSV QVLAYYTVRN FTLRNTKIKK 1020
 GSQGRPSGR VVTQYHYTQW PDMGVPEYSL PVLTFVRKAA YAKRHAVGFV VVHCAGVGR 1080
 TGTIYVLDLM LQIQHSGTV NIFGFLKHIR SQRYLVQTE EQYVFIHDTL VEAILSKETE 1140
 VLDSEIHAYV NALLIPGPAG KTKLEKQFQL LSQSNIQQSD YSAALKQCNR EKNRTSSIIP 1200
 VERSRVGIS LSQEGTDYIN ASYIMGYYS NEFIITQHPL LHTIKDFWRM IWDHNAQLVV 1260
 10 MIPDQGNMAE DEPVYVFNKD EPINCESFKV TLMAEEHKCL SNEEKLIQD FILEATQDDY 1320
 VLEVRHFQCP KWPNDSPIS KTFELISVIK EEAANRDGPM IVHDEHGGVT AGTFCALITL 1380
 MHQLEKENS DVYQVAKMIN LMRPGVPADI EQYQFLYKVI LSLVSTRQEE NPSTSLDSNG 1440
 AALPDGNIAB SLESIV 1456

Seq ID NO: C314 Protein Sequence
 Protein Accession #: Bos sequence

1 11 21 31 41 51
 20 MRILKRFAC IQLLCVCRLD WANGYYRQOR KLVEEIGWSY TGAALNQKNWG KKYPTCNSPK 60
 QSPINIDEDL TQVNVNKKL KPQGWDTSL ENTFIHNTGK TVEINLTNDY RVSGGVSEMV 120
 MVFKASKITF HWGKNMSSD GSEHSLEGQK PPLEMGIYCF DADRFSFEE AVKGGKGLRA 180
 LSLFEVGT EMLDFKAIID GVESVSRFGK QAALDPFILL NLLPNSTDKY YIYNGSLTSP 240
 PCTDTDWIVF KOTVSISSSQ LAVFCEVLTM QSSGYVLMMD YLQNNFREQQ YKFSRQVFS 300
 25 YTGKEEIEHA VCSSEPEVQ ADPENYTSLL VTWERPRVYV DTMIKFAVL VQQLDGEDQT 360
 KBEELTDGYQ DLAGAILNLL PMSYVLQIV AICINGLYGK YSDQLIVDMT TDNPELDLFP 420
 ELIGTEEIK EEEGKDIEE GAIVNPRGDS ATNQIRKKEP QISTTHYMR IGTKYNEAKT 480
 NRSPTRGSEF SKGSDVPTNS NSTSQPVTK LATEKDILST SQVTLELPPH VEGTSASLN 540
 DGSKTVLRSP HMLSGTAKS LNTVSIITEY EESLITSEKL DTGAEDSSGS SPATSAIPFI 600
 30 SENISQGYIF SSENPTITYV DVLIPESARN ASEDSTSSGS EESLKDPSME CNVWFFSSTD 660
 ITAQEDVGSQ RESFLQNTYT EIRVDESEKT TKSPSAGEVM SQGFSVTDL EPHYSTPAYF 720
 PTEVTPHAPT PSRQQLDVS TVNVVYSQIT QFVYNEASNS SHESRIGLAE GLESEKKAIV 780
 PLVIVSALT ICLVVLVGL IYWRKCFQTA HFYLEDSTSP RVISTPPTPI FPISDDVGAI 840
 PIKHPFKHVA DIHASSGFTE EFETLKEFYQ EVQSCVVDLG ITADSSNHPD NKHKRYINI 900
 35 VAYDSRVKL AQLAEKDGKL TDYINANYVD GYNRPKAYIA AQGPLKSTAE DFWRMIWEHN 960
 VEIVMITNL VEGRRKCDQ YWPADGSEY GNFLVTQKSV QVLAYYTVRN FTLRNTKIKK 1020
 GSQGRPSGR VVTQYHYTQW PDMGVPEYSL PVLTFVRKAA YAKRHAVGFV VVHCAGVGR 1080
 TGTIYVLDLM LQIQHSGTV NIFGFLKHIR SQRYLVQTE EQYVFIHDTL VEAILSKETE 1140
 VLDSEIHAYV NALLIPGPAG KTKLEKQFQL LSQSNIQQSD YSAALKQCNR EKNRTSSIIP 1200
 40 VERSRVGIS LSQEGTDYIN ASYIMGYYS NEFIITQHPL LHTIKDFWRM IWDHNAQLVV 1260
 MIPDQGNMAE DEPVYVFNKD EPINCESFKV TLMAEEHKCL SNEEKLIQD FILEATQDDY 1320
 VLEVRHFQCP KWPNDSPIS KTFELISVIK EEAANRDGPM IVHDEHGGVT AGTFCALITL 1380
 MHQLEKENS DVYQVAKMIN LMRPGVPADI EQYQFLYKVI LSLVSTRQEE NPSTSLDSNG 1440
 AALPDGNIAB SLESIV 1456

Seq ID NO: C315 Protein Sequence
 Protein Accession #: Bos sequence

1 11 21 31 41 51
 50 MRILKRFAC IQLLCVCRLD WANGYYRQOR KLVEEIGWSY TGAALNQKNWG KKYPTCNSPK 60
 QSPINIDEDL TQVNVNKKL KPQGWDTSL ENTFIHNTGK TVEINLTNDY RVSGGVSEMV 120
 FKASKITFHW GKNMSSDGS EHSLEGQKFP LEMGIYCFDA DRFSSFEAV KGGKGLRALS 180
 ILFEVGTEN LDFKAIIDGV BVSRRFGQA ALDPFILLNL LPNSTDKYI YNGSLTSPPC 240
 55 TDTVDWVFK DTVSISBSQ AVFCEVLTMO QSGYVLMMDY LQNNFREQQY KFSRQVFSY 300
 TGKEEIEHAV CSESEPEVQA DPENYTSLLV THERPRVYD TMIEKFAVL VQQLDGEDQTK 360
 HSEFLTDGYQ LGAILNLLP NMSYVLQIVA ICTINGLYGK YSDQLIVDMPT DNPELDLPF 420
 LIGTEEIKE EEEGKDIEE AIVNPRGDS A TNQIRKKEPQ ISTTHYMR IGTKYNEAKT 480
 RSPTRGSEF SKGSDVPTNS NSTSQPVTK LATEKDILST QVTLELPPH VEGTSASLN 540
 60 GSKTVLRSP HMLSGTAKS LNTVSIITEY EESLITSEKL DTGAEDSSGS SPATSAIPFI 600
 ENISQGYIF SSENPTITYV DVLIPESARN ASEDSTSSGS EESLKDPSME CNVWFFSSTD 660
 TAQEDVGSQ RESFLQNTYT EIRVDESEKT KSPSAGEVM SQGFSVTDL EPHYSTPAYF 720
 TSVTPHAPT PSRQQLDVS TVNVVYSQIT QFVYNEASNS SHESRIGLAE GLESEKKAIV 780
 65 PLVIVSALT ICLVVLVGL IYWRKCFQTA HFYLEDSTSP RVISTPPTPI FPISDDVGAI 840
 PIKHPFKHVA DIHASSGFTE EFETLKEFYQ EVQSCVVDLG ITADSSNHPD NKHKRYINI 900
 VAYDSRVKL AQLAEKDGKL TDYINANYVD GYNRPKAYIA AQGPLKSTAE DFWRMIWEHN 960
 VEIVMITNL VEGRRKCDQ YWPADGSEY GNFLVTQKSV QVLAYYTVRN FTLRNTKIKK 1020
 GSQGRPSGR VVTQYHYTQW PDMGVPEYSL PVLTFVRKAA YAKRHAVGFV VVHCAGVGR 1080
 TGTIYVLDLM LQIQHSGTV NIFGFLKHIR SQRYLVQTE EQYVFIHDTL VEAILSKETE 1140
 70 VLDSEIHAYV NALLIPGPAG KTKLEKQFQL LSQSNIQQSD YSAALKQCNR EKNRTSSIIP 1200
 VERSRVGIS LSQEGTDYIN ASYIMGYYS NEFIITQHPL LHTIKDFWRM IWDHNAQLVV 1260
 MIPDQGNMAE DEPVYVFNKD EPINCESFKV TLMAEEHKCL SNEEKLIQD FILEATQDDY 1320
 VLEVRHFQCP KWPNDSPIS KTFELISVIK EEAANRDGPM IVHDEHGGVT AGTFCALITL 1380
 MHQLEKENS DVYQVAKMIN LMRPGVPADI EQYQFLYKVI LSLVSTRQEE NPSTSLDSNG 1440
 75 RFGVPADIRQ YQFLYKVL LSGTRQEE NPSTSLDSNG 1456

Seq ID NO: C316 Protein Sequence
 Protein Accession #: Bos sequence

1 11 21 31 41 51
 80 MRILKRFAC IQLLCVCRLD WANGYYRQOR KLVEEIGWSY TGAALNQKNWG KKYPTCNSPK 60
 QSPINIDEDL TQVNVNKKL KPQGWDTSL ENTFIHNTGK TVEINLTNDY RVSGGVSEMV 120
 FKASKITFHW GKNMSSDGS EHSLEGQKFP LEMGIYCFDA DRFSSFEAV KGGKGLRALS 180
 ILFEVGTEN LDFKAIIDGV BVSRRFGQA ALDPFILLNL LPNSTDKYI YNGSLTSPPC 240

TDTVDWIVFK DTVSISESQL AVFCEVLTMQ QSGYVLMMDY LQNNFREQQY KFSRQVFSSY 300
 TGKEEIHBAV CSESEPENVQA DPENYTSLLV TWERPRVVDY TMIEKFAVLV QQLDGEDQTK 360
 HEFLTDGYQD LGAILNNLLP NMSYVLQIVA ICTNGLYGYK SDQLIVDMPT DNPEASNSSE 420
 ESRIGLAEGE ESEKKAVIPL VIVSALTFC LVVLVGILYI WRKCFQTAHF YLEDSTSPRV 480
 5 ISTPTPTPIF ISDDVGAIP I KHFPKHVADL HASSGFTEEF ETLKEFVQEY QSCTVDLIGT 540
 ADSSNHFDNK HKNRYINIVA YDSRVRKLAQ LAEKDGKLT D YINANYVDGY NRPKAYIAAQ 600
 GPLKSTAEDE WRMIWEHNVE VIVMITNLVE KGRRKCDQYW PADGSEYVGN FLVTQKSVQV 660
 LAYYTVRNFT LRNTKIKKGS QKGRPSGRVY TQYHYTQWPD MGVPFYSLPV LTFVRKAAYA 720
 KRHAUGVPVV HCSAGVGRG TYIVLDSMLQ QIQHSGTVNI FGFLKHRSQ RNYLVQTEBQ 780
 10 YVFIHDTLVE AILSKETEVL DSHIHAYVNA LLIPGPAGKT KLEKQFQLLS QSNIQQSDYS 840
 AALKQCNREK NRTSSIIPEV RSRVGISLS GEGTDYINAS YIMGYYSNE FIITQHPLH 900
 TIKDFWRMIW DHNAQLVVM I PDGQMAEDS FVYWFNKDEP INCESPKVTI MAEHHKCLSN 960
 EEKLIQDFI LEATQDDYVL EVRHFCQPKW PNPDSPIKST FELISVIKSE AANRDGPMIV 1020
 HDEHGGVTAG TFCALITLMI QLEKENSVDV YQVAXMINLM RGVFADIEQ YQFLYKVLIS 1080
 15 LVSTRQSENP STSLDENGAA LPDGNIAESL ESL 1140

Seq ID NO: C317 Protein Sequence
 Protein Accession #: Eos sequence

20 1 11 21 31 41 51
 | | | | | |
 MRILKRFLAC IQLLCVCRID WANGYYRQQR KLVEEIGWSY TGALEQKNGG KKYPTCNSPK 60
 QSPINIDEDL TQVNVNKKKL KFGQNDKTSI ENTFIHNTGK TVEINLNDY RVSGGVSEMV 120
 FKASKITEHW GKCNMSDGS EHSLEGQKFP LEMQIYCFDA DRPSSFEBAV KKGKLRALS 180
 25 ILFEVGTREN LDFKAIIDGV ESVSRRFGQA ALDPFILLML LFNSTDKYI YNGSLTSPPC 240
 TDTVDWIVFK DTVSISESQL AVFCEVLTMQ QSGYVLMMDY LQNNFREQQY KFSRQVFSSY 300
 TGKEEIHBAV CSESEPENVQA DPENYTSLLV TWERPRVVDY TMIEKFAVLV QQLDGEDQTK 360
 HEFLTDGYQD LGAILNNLLP NMSYVLQIVA ICTNGLYGYK SDQLIVDMPT DNPELDLFFE 420
 LIGTEELIKE ESEKKAVIPL VIVSALTFC LVVLVGILYI WRKCFQTAHF YLEDSTSPRV 480
 30 RSPTRGSEFS GKQDVNTSL NTSQPVTKL ATEKDISLTS QTVTELPPT VEGTSASLND 540
 GSKTVLRSPH MNLSTGTAESL NTVSITTEYE ESLTSTFKLD TGAEDSGGS PATSAIPFIS 600
 ENISQGYIFS SENPETITVD VLIPESARNA SEDSTSSGSE ESKLDPSEMG NVWFPSSDI 660
 TAQPDVGSGR ESFLQINYTE IRVDESEKTT KSPSAGFVMS QGSPVTDLEM PHYSTFAYFP 720
 TEVTPHAFIP SSRQDILVST VNVVYSQITQ PVYNEASNS HESRIGLAEG LESEKKAIVP 780
 35 LVIVSALTFI CLVVLVGILI YWRKCFQTAH FYLEDSTSPR VISTPTPTIF PISDDVGAIP 840
 IKHFPKHVAD LHASSGFTEF FETLKEFYQE VQSCVTLGI TADSSNHFDN HKNRYINIV 900
 AYDHSRVLKA QLAEKDGKLT DYINANYVDG YNRPKAYIAA QGPLKSTAE FWRMIWEHN 960
 EVIVMITNLV EKGRRKCDQY NPADGSEBYG NPLVTQKSVQ VLAYYTVRNF TLNRTKIKKG 1020
 40 SQKGRPSGRV VTQYHYTQWP DMGVPEYSLP VLTFRKAAY AKRHAUGVPV VHCASAGVGR 1080
 GTYIVLDSML QIQHSGTVNI IFGFLKHRS QRNYLVQTEE QYVFIHDTLV EAILSKETEVL 1140
 LDSHIAHYVN ALLIPGPAGK TKLEKQFQGL TSPFLBECRG TISAHCNLPL PGLTDPPTSA 1200
 SRVARTILS QSNIIQSDYS AALKQCNREK NRTSSIIPEV RSRVGISLS GEGTDYINAS 1260
 YIMGYYSNE FIITQHPLH TIKDFWRMIW DHNAQLVVM I PDGQMAEDS FVYWFNKDEP 1320
 45 INCESPKVTI MAEHHKCLSN EEKLIQDFI LEATQDDYVL EVRHFCQPKW PNPDSPIKST 1380
 FELISVIKSE AANRDGPMIV HDEHGGVTAG TFCALITLMI QLEKENSVDV YQVAXMINLM 1440
 RGVFADIEQ YQFLYKVLIS LVSTRQSENP STSLDENGAA LPDGNIAESL ESL 1493

Seq ID NO: C318 Protein Sequence
 Protein Accession #: Eos sequence

50 1 11 21 31 41 51
 | | | | | |
 MRILKRFLAC IQLLCVCRID WANGYYRQQR KLVEEIGWSY TGALEQKNGG KKYPTCNSPK 60
 QSPINIDEDL TQVNVNKKKL KFGQNDKTSI ENTFIHNTGK TVEINLNDY RVSGGVSEMV 120
 55 FKASKITEHW GKCNMSDGS EHSLEGQKFP LEMQIYCFDA DRPSSFEBAV KKGKLRALS 180
 ILFEVGTREN LDFKAIIDGV ESVSRRFGQA ALDPFILLML LFNSTDKYI YNGSLTSPPC 240
 TDTVDWIVFK DTVSISESQL AVFCEVLTMQ QSGYVLMMDY LQNNFREQQY KFSRQVFSSY 300
 TGKEEIHBAV CSESEPENVQA DPENYTSLLV TWERPRVVDY TMIEKFAVLV QQLDGEDQTK 360
 HEFLTDGYQD LGAILNNLLP NMSYVLQIVA ICTNGLYGYK SDQLIVDMPT DNPELDLFFE 420
 60 LIGTEELIKE ESEKKAVIPL VIVSALTFC LVVLVGILYI WRKCFQTAHF YLEDSTSPRV 480
 RSPTRGSEFS GKQDVNTSL NTSQPVTKL ATEKDISLTS QTVTELPPT VEGTSASLND 540
 GSKTVLRSPH MNLSTGTAESL NTVSITTEYE ESLTSTFKLD TGAEDSGGS PATSAIPFIS 600
 ENISQGYIFS SENPETITVD VLIPESARNA SEDSTSSGSE ESKLDPSEMG NVWFPSSDI 660
 TAQPDVGSGR ESFLQINYTE IRVDESEKTT KSPSAGFVMS QGSPVTDLEM PHYSTFAYFP 720
 65 TEVTPHAFIP SSRQDILVST VNVVYSQITQ PVYNEASNS HESRIGLAEG LESEKKAIVP 780
 LVIVSALTFI CLVVLVGILI YWRKCFQTAH FYLEDSTSPR VISTPTPTIF PISDDVGAIP 840
 IKHFPKHVAD LHASSGFTEF FETLKEFYQE VQSCVTLGI TADSSNHFDN HKNRYINIV 900
 AYDHSRVLKA QLAEKDGKLT DYINANYVDG YNRPKAYIAA QGPLKSTAE FWRMIWEHN 960
 70 EVIVMITNLV EKGRRKCDQY NPADGSEBYG NPLVTQKSVQ VLAYYTVRNF TLNRTKIKKG 1020
 SQKGRPSGRV VTQYHYTQWP DMGVPEYSLP VLTFRKAAY AKRHAUGVPV VHCASAGVGR 1080
 GTYIVLDSML QIQHSGTVNI IFGFLKHRS QRNYLVQTEE QYVFIHDTLV EAILSKETEVL 1140
 LDSHIAHYVN ALLIPGPAGK TKLEKQFQGL QSNIIQSDYS AALKQCNREK NRTSSIIPEV 1200
 ERSRVGISLS GEGTDYINAS YIMGYYSNE FIITQHPLH TIKDFWRMIW DHNAQLVVM 1260
 75 IPDQMAEDS FVYWFNKDEP INCESPKVTI MAEHHKCLSN EEKLIQDFI LEATQDDYVL 1320
 DGRNPLCEDN PYAPTRKRPK RGCLPGSQDD QSDARSIC 1359

Seq ID NO: C319 Protein Sequence
 Protein Accession #: XP_002914.4

80 1 11 21 31 41 51
 | | | | | |
 MKDIDIGKEY IIPSPGYRSV RERTSTSGTH RDREDSKFR TRPLECQDAL ETAAABGLS 60
 LDASMSQLR ILDEEHPGK YHGLSALKP IRTTSKHQHP VDNAGLFSCM TFSWLSLAR 120
 VAHKKGLSMD EDVWSLSFGE SSDVNCRRLE RLWQEBLNEV GPDAASLRV VVIFCKTRLI 180

LSVCLMITO LAGFSGPAFM VKHLEYTQA TESNLQYSL LVLGLLLEI VRWSLALTW 240
 ALNYRTGVR LRCALITMAFK KILKLNKIKE KSLGELINIC SNGQRMFEA AAVGSLLAG 300
 PVVAILGMIY NVIILGPTGF LGSAYFIFLY PAMMFASRLT AYFRKCVAA TDERVQKME 360
 VLTIIKPIKM YAWVKAFSQS VQKIREEERR ILEKAGYFQS ITVGVAPIVV VIASVVTFSV 420
 HMTLGFDLTA AQAFVTVTVF NSMTFALKVT PFSVKSLSEA SVAVDRFKSL FLMESEVHM 480
 NKPASPHIKI EMKNATLAWD SSSSIQNSP KLTPKMKDK RASRGKKEKV RQLQRTHEQA 540
 VLAEQKGRLL LDSDERPSPE EEEGKHILG HRLQRTLHS IDLEIQEGL VIGCGSVGSG 600
 KTSLSAILG QMTLEGGIA ISGTFAVVAQ QAWILNATLR DNILFGKEYD EERYNSVLNS 660
 CCLRPDLAIL PSEDLTETGE RGNLSSGQR QRLSLARALY SDRSTYILDD PLSALDAHV 720
 NHIFNSAIRK HLKSKTVLFV THQLQYLWDC DEVIFMKEGC ITERGTHEEL MNLNGDYATI 780
 FNNLLIGETP FVEINSKKT SSGQKKSQDK GPKTGSVKKE KAVKPEEGQL VQLEEGQGS 840
 VPSVYGVYI QAAGGFLAFL VIMALFMLNV GSTAPSTWWL SYWIKQSGGN TTVTRGNETS 900
 VSDSMKDNPH MQYYASIAL SMAMVILKA IRGVVFKGT LRASSRLHDE LFRILRSPM 960
 KFFDTTPTGR ILNRFSKMD EVDVRLFPQA EMFIQNVILV FPCVGMIAGV PFWFLVAVGP 1020
 LVILFSLVLI VSRVLIRELK RLDNITQSPF LSHITSSIQG LATIHAYNKG QEFILHRYQEL 1080
 LDDNQAFPL FPCAMRLAV RDLISIALI TTTGLMIVLM HGQIPFAYAG LAISYAVOLT 1140
 GLPQFTVRLA SETEARFTSV ERINHYIKIL SLAPARIKN KAPSPDWQPE GEVTFENAEM 1200
 RYRENLPVL KKVSPFIKPK EKIGIVGRTG SSKSLGML FRLVLSGGC IKIDGVRISS 1260
 IGLADLRSL SIIPQEPVLF SGTVRNLDP FNQYTEDQIW DALERTHMKC CIAQLPLKLE 1320
 SEVMENGDNF SVGERQLLCI ARALLRHCKI LILDEATAAM DTETDLIQE TIREAFADCT 1380
 MLTIAHRLHT VLGSORIMVL AQGQVVEFDT PSVLLSNDSS RYAMFAAAE NKVAVKG 1437

Seq ID NO: C320 Protein Sequence
 Protein Accession #: NP_005679.1

1 11 21 31 41 51
 MKDIDICKEY IIPSPGYRSV RERTSTSGTH RDREDSKPRR TRPLECQDAL ETAARABGLS 60
 LDASMSQLR ILDEHPKKG YHGLSALKP IRTFSKHQEP VDNAGLFSCM TFSWLSLAR 120
 VAHKKGELSM EDVWLSKHE SSVNCRRLS RLWQBELNEV GEDAAALRRV VWIFCTRILI 180
 LSVCLMITO LAGFSGPAFM VKHLEYTQA TESNLQYSL LVLGLLLEI VRWSLALTW 240
 ALNYRTGVR LRCALITMAFK KILKLNKIKE KSLGELINIC SNGQRMFEA AAVGSLLAG 300
 PVVAILGMIY NVIILGPTGF LGSAYFIFLY PAMMFASRLT AYFRKCVAA TDERVQKME 360
 VLTIIKPIKM YAWVKAFSQS VQKIREEERR ILEKAGYFQS ITVGVAPIVV VIASVVTFSV 420
 HMTLGFDLTA AQAFVTVTVF NSMTFALKVT PFSVKSLSEA SVAVDRFKSL FLMESEVHM 480
 NKPASPHIKI EMKNATLAWD SSSSIQNSP KLTPKMKDK RASRGKKEKV RQLQRTHEQA 540
 VLAEQKGRLL LDSDERPSPE EEEGKHILG HRLQRTLHS IDLEIQEGL VIGCGSVGSG 600
 KTSLSAILG QMTLEGGIA ISGTFAVVAQ QAWILNATLR DNILFGKEYD EERYNSVLNS 660
 CCLRPDLAIL PSEDLTETGE RGNLSSGQR QRLSLARALY SDRSTYILDD PLSALDAHV 720
 NHIFNSAIRK HLKSKTVLFV THQLQYLWDC DEVIFMKEGC ITERGTHEEL MNLNGDYATI 780
 FNNLLIGETP FVEINSKKT SSGQKKSQDK GPKTGSVKKE KAVKPEEGQL VQLEEGQGS 840
 VPSVYGVYI QAAGGFLAFL VIMALFMLNV GSTAPSTWWL SYWIKQSGGN TTVTRGNETS 900
 VSDSMKDNPH MQYYASIAL SMAMVILKA IRGVVFKGT LRASSRLHDE LFRILRSPM 960
 KFFDTTPTGR ILNRFSKMD EVDVRLFPQA EMFIQNVILV FPCVGMIAGV PFWFLVAVGP 1020
 LVILFSLVLI VSRVLIRELK RLDNITQSPF LSHITSSIQG LATIHAYNKG QEFILHRYQEL 1080
 LDDNQAFPL FPCAMRLAV RDLISIALI TTTGLMIVLM HGQIPFAYAG LAISYAVOLT 1140
 GLPQFTVRLA SETEARFTSV ERINHYIKIL SLAPARIKN KAPSPDWQPE GEVTFENAEM 1200
 RYRENLPVL KKVSPFIKPK EKIGIVGRTG SSKSLGML FRLVLSGGC IKIDGVRISS 1260
 IGLADLRSL SIIPQEPVLF SGTVRNLDP FNQYTEDQIW DALERTHMKC CIAQLPLKLE 1320
 SEVMENGDNF SVGERQLLCI ARALLRHCKI LILDEATAAM DTETDLIQE TIREAFADCT 1380
 MLTIAHRLHT VLGSORIMVL AQGQVVEFDT PSVLLSNDSS RYAMFAAAE NKVAVKG 1437

Seq ID NO: C321 Protein Sequence
 Protein Accession #: NP_005553.1

1 11 21 31 41 51
 MPALWLGCL CFSLLLPAA RATSREVCDC NGKSRQCIFD RELHRQTGNG FRCINCNNDNT 60
 DGIECECKN GFYRREERDR CLPCNCSKG SLSARCONSG RCSCKEPVTV ARCDRCPLPG 120
 HMLTDAGCTY DQRLDLSKCD COPAGLAPC DAGRCVCKPA VTGERCDRCR SGYYNLDGGN 180
 BEGCTQCECY GHSASCRSSA KYSVHKITST FHQDVDGKKA VQRNGSPARK QWSQBQDVF 240
 SSAQRLEDEVY FVAPAKFLGN QQVSYQSL SFDYRVDGGR HPSAHDVILE GAGLRITAPL 300
 MFLKTLPCG LTKTYTFRIN EHPNNWSEF LSYFSEYRLL RNLTLALIRA TYGEYSTGYI 360
 DNVTLISARP VSGAPAEVVE QCICPVGYKG QPCQDCASGY KRDSARLGPF GTCIPCNCQG 420
 GGACDPDTGD CYSGDENEDI ECADCPGFY NDPEDPRSCK PCFCHNGFSC SVMPESEVV 480
 CNNCPFGVTG ARCELADG FGDFFGEHGP VRPCQPCQCN NVVDPASGN CDRLTGRCLK 540
 CHTNAGIYC DQCKAGYFGD PLAPNEADKC RACNCPM3S RPYVCRSDGT CVCKPGFGGP 600
 NCEHGAPSCP ACYNQVLIQM DQFMQQLQRM EALISKAQGG DGVVPDTELE GRMQQABQAL 660
 QDILDAQIS EGASRSLGLQ LAKVRSQENS YQSRLLDLM TVERVHALGS QYQNRVDRTH 720
 RLITQMQLSL AESSESLGNT NIPASOHYVG PNCFKSLAQE ATRLARSHVS SASNMQLTR 780
 ETEDYSKQAL SLVRKALHEG VSGSGSPDG AVVQGLVEKL ETKSLAQQL TREATQAEIE 840
 ADRSYQESLR LLDVSRLQG VSDQSPQVEE AKRIKQADS LSTLVTRHMD BFKRTQKNLG 900
 NWKEAQQLL QNGKSGREKS DQLLERANLA KSRQAQALSM GNATFYEVES ILKNLREFDL 960
 QVDNKAQAE BAMKLEYSIS QKVSNASDKT QQAERALGSA AADAQRAKNG AGEALHISSE 1020
 IEQIGISNL EANTADGAL AMEKGLASLK SEMREVEGEL ERKELEFDTN MDVAVQMVTE 1080
 AQKVTRAKN AGVTIQDTLN TLDGLLHND QPLSVDERGL VLEQKLERA KTQINSQLEP 1140
 MMSELEKRR QQRGHLHLE TSIDGITADV KNLENIRNDL PPGCYNTQAL EQQ 1193

Seq ID NO: C322 Protein Sequence
 Protein Accession #: NP_066924.1

1 11 21 31 41 51
 MANACLQLLG FILAFIAGWIG AIVSTALPQW RIYSYAGDNI VTAQAMYEGE WM6CVSQSTG 60

QIQCKVFDSL LNLSSLTQAT RALMVVGILL GVIAIFVATV GMKCMKCLD DEVQKMRMAV 120
 IGGAIFFLAG LAILVATAMY GNRIVQEFYD PMTPVNARYE FGQALFTGWA AASLCLLGA 180
 LLCSCPRKT TSYTPRPYP KRAPSSGKDY V 211

5 Seq ID NO: C323 Protein Sequence
 Protein Accession #: AAM77876

10 1 11 21 31 41 51
 MSSWIRWHPG AMARLWGFCH LVVGFWRAAF ACPTSCCKCSA SRINCSDPSP GIVAFPRLEP 60
 NSVDPENITE IFIANQKRLI IINEDDVEAY VGLRNLTIYD SGLKPVAKKA FLKNSNLQHI 120
 NPTRNKLTSL SRKHFRHLDL SELILVGNPF TCSCDIMWIK TLQEAQSSPD TQDLYCLNES 180
 SKNIPLANLQ IPNCGLPAN LAAPNLTVEE GKSTILSCSV AGDPVPMYMW DVGNLVSKHM 240
 15 NETSRTQGS L RITNISSDDG GKQISCAVEN LVGEDQDSVN LTVHFAPTIT FLESPTSDEH 300
 WCIPFTVKGK PKPALQWFYN GAILNESKYI CTKIHVTNHT EYRGCLQLDN PTHMNGDYT 360
 LIAKNEYGKD EKQISAHPMG WPGIDDGANP NYPDVIYEDY GTAANDIGDT TNRSNEIPST 420
 DVTDKTGREH LSVYAVVVIA SVVGFCLLVM LFLKLARHS KFGMKGPVLF HKIPLDG 477

20 Seq ID NO: C324 Protein Sequence
 Protein Accession #: NP_006171.1

25 1 11 21 31 41 51
 MSSWIRWHPG AMARLWGFCH LVVGFWRAAF ACPTSCCKCSA SRINCSDPSP GIVAFPRLEP 60
 NSVDPENITE IFIANQKRLI IINEDDVEAY VGLRNLTIYD SGLKPVAKKA FLKNSNLQHI 120
 NPTRNKLTSL SRKHFRHLDL SELILVGNPF TCSCDIMWIK TLQEAQSSPD TQDLYCLNES 180
 SKNIPLANLQ IPNCGLPAN LAAPNLTVEE GKSTILSCSV AGDPVPMYMW DVGNLVSKHM 240
 30 NETSRTQGS L RITNISSDDG GKQISCAVEN LVGEDQDSVN LTVHFAPTIT FLESPTSDEH 300
 WCIPFTVKGK PKPALQWFYN GAILNESKYI CTKIHVTNHT EYRGCLQLDN PTHMNGDYT 360
 LIAKNEYGKD EKQISAHPMG WPGIDDGANP NYPDVIYEDY GTAANDIGDT TNRSNEIPST 420
 DVTDKTGREH LSVYAVVVIA SVVGFCLLVM LFLKLARHS KFGMKGPVLF ISNDDASAP 480
 LHHISNGSNT PSSSREGGDA VIIGMTKIPV IENPQYPGIT NSQLKPDTFV QHIKRNIVL 540
 KRELGEAFG KVFIAECYNL CPEQDKILVA VKTLKDASN ARKDFHREAS LLTNLQHEHI 600
 35 VKFYGVCSVS DPLIMVPEYM KHGDLNKEFLR AEGPDAVLMA EGNPPTLTQ SQMLHIAQOI 660
 AAGMVYLAG HFVHDLATR NCLVGENLLV KIGDFGMSRD VYSTDYRVKG GHTMLPIRM 720
 PFESIMYRKE TTESDVWSLG VVLWEIFTYG KQFWYQLSN EVIECTQGR VLQRPTCPQ 780
 EYVELMLGCV QREPMRKNI KGIRTLQLNL AKASPVYLDI LG 822

40 Seq ID NO: C325 Protein Sequence
 Protein Accession #: Bos sequence

45 1 11 21 31 41 51
 MSSWIRWHPG AMARLWGFCH LVVGFWRAAF ACPTSCCKCSA SRINCSDPSP GIVAFPRLEP 60
 NSVDPENITE IFIANQKRLI IINEDDVEAY VGLRNLTIYD SGLKPVAKKA FLKNSNLQHI 120
 NPTRNKLTSL SRKHFRHLDL SELILVGNPF TCSCDIMWIK TLQEAQSSPD TQDLYCLNES 180
 SKNIPLANLQ IPNCGLPAN LAAPNLTVEE GKSTILSCSV AGDPVPMYMW DVGNLVSKHM 240
 50 NETSRTQGS L RITNISSDDG GKQISCAVEN LVGEDQDSVN LTVHFAPTIT FLESPTSDEH 300
 WCIPFTVKGK PKPALQWFYN GAILNESKYI CTKIHVTNHT EYRGCLQLDN PTHMNGDYT 360
 LIAKNEYGKD EKQISAHPMG WPGIDDGANP NYPDVIYEDY GTAANDIGDT TNRSNEIPST 420
 DVTDKTGREH LSVYAVVVIA SVVGFCLLVM LFLKLARHS KFGMKGPVLF HKIPLDG 477

55 Seq ID NO: C326 Protein Sequence
 Protein Accession #: NP_570843.1

60 1 11 21 31 41 51
 MFLKHYLLLL VGQAMGAGL AYHGCPSECT CSRASQVECT GARIVAVPTP LPWNAMSLQI 60
 LINTHTLENE SPFLNISALI ALRIENNELS RITPGAFNRL GSLRYLSLAN NKLQVLPGL 120
 FQGLDSESL LLSSNQLLQI QPAHFSQCSN LKELQLHGNH LSYIPDGAFO HLVLGLTKML 180
 GKNSLTHISP KVPQHLANTQ VLRLVENRLT DIPMGTFDGL VNLQELALQO NQIGLLSPGL 240
 PHNHNHLQRI YLSNMHISQL PPSIFWQLPQ LNRLLTGFNS LKELSLGIFG PMENLRELNL 300
 YDNHISSELD NVFSNLRQLQ VLILERNQIS FISPGAFNGL TELNELSLHT NALQDLQGV 360
 65 FRMLANLQNI SLQNNRLRQL PGNIPANVNG LMAIQLQNNQ LENLFLGTFD HLGKLCETRL 420
 YENPNCDSO ILPLRNWLL NQPRLGTDIV PVCFSANVR GQSLIINVM VAVPSVHVPE 480
 VPSYPETPWY PTFPSYDIT SVSSTTELTS PVEDYIDLTT IQVTDRESVW GMTQAQSGLA 540
 IAAIVIGIVA LAC9IAACVG CCOCKKRSQA VLMQKAPNE C 581

70 Seq ID NO: C327 Protein Sequence
 Protein Accession #: NP_002649.1

75 1 11 21 31 41 51
 MRALLARLLL CVLVVSDSKG SNELHQVPSN CDCLNGGTCV SNKYFENIHW CNCPKPGGG 60
 HCEIDKSKTC YBENGHFYRG KASTDIMGPR CLPWNBSATVL QQTYBAHRSO ALQLGLGRHN 120
 YCRNENRMR PCTVQVGLK PLVQSCMVD CADGKPPSP PBEIKFOCGQ KYLRPRFKII 180
 GGEFTTIEMQ PWFPAIYRRH RGGSVTYVCG GSLISPCWVI SATHCFFIDY KREDYIVYLG 240
 RSRLSNNTQG EMKFEVENLI LEKDYSDATL AHNIDIALK IRSKEGRCAQ PSRTIQTICL 300
 80 PSMYNDPQFG TSCEITGPGK ENSTDYLYPE QLEMTVVKLI SHRECQPHY YGSEVTKML 360
 CAADPQWKTQ SCQGDSSGGL VCSLQGRMTL TGIVSNRGRC ALKDKPGVYT EVSEHFLFWIR 420
 SHTKRENGLA L 431

Seq ID NO: C328 Protein Sequence
 Protein Accession #: XP_087254.1

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|----|------------|------------|-------------|-------------|------------|------------|-----|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 5 | MQFRECSING | MKYOEINGRL | VPEGPTPDSS | EGNLSYLSEL | SHLNNLSHLT | TSSSPRTSPE | 60 |
| | NETRLIKEHD | LFFKAVSLCH | TVQISNVQTD | CTGDGPWQSN | LAPSOLEYYA | SSPDEKALVE | 120 |
| | AAARIGIVFI | GNSSETMEVK | TIGKLERYKL | LHILEFSDSR | RRMSVIVQAP | SSEKLLFAKG | 180 |
| | AESSILPKCI | GGEIEKTRIH | VDEFALKGLR | TLCIAYRKFT | SKEYEEDIKR | IFEARTALQQ | 240 |
| | REERLAAPVQ | FIEKDLILLG | ATAVEDRLQD | KVRETIETALR | MAGIKVNVLT | GDRRETAVSV | 300 |
| 10 | SLSCGHFHT | MNILELINOK | SDSECAEQLR | QLARRITEOH | VIQHGLVVDG | TSLSLALREH | 360 |
| | EKLMEVCRN | C9AVLCERMA | FLQKAKVIRL | IKISEKPIIT | LAVGDGANDV | SMIOEAHVGT | 420 |
| | GIMGKEGRQA | ARNSDYAIAR | FKFLSKLLFV | HGHFYIIRIA | TLVQYFFYKN | VCFITPQFLY | 480 |
| | QFYCLFSQQT | LYDSVYLTLY | NICFTSLPIL | IYSLLEQEVN | PHVLQNKPTL | YRDISKNRLL | 540 |
| | SIKTFLYTTI | LGFSHAFIFF | FGSYLLIGKD | TSLLGNGQMF | GNWTFGTLLV | TVMTIVTVVK | 600 |
| 15 | MALETHFWT | INHLVTGSI | IFYFVFSLFY | GGILWFFLGS | QNMVFVFIQL | LSSGSANFAI | 660 |
| | IMVVTCLFL | DIKKVVDHRH | LHPTSTETAKQ | LFTETNAGIKC | LDSMCCFPFG | EAACASVGRM | 720 |
| | LSRVIGRCSP | THISRSWSAS | DPFYTNDRSI | LTLSTMSST | C | | 761 |

Seq ID NO: C329 Protein Sequence
Protein Accession #: XP_087461.1

| | | | | | | | |
|----|------------|------------|------------|------------|------------|------------|-----|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 20 | MLPLLAALLA | AACPLFPVRG | GAADAPGLLG | VPSNASVNAS | SAASPSPRGC | WPRRPPGPPS | 60 |
| | ARARRRRRR | RRLCNISVQR | QMLSSLLVRN | GRPRGFCQDL | LLFSTNAGGR | AFFAAAHHRV | 120 |
| 25 | GPPLLIHLG | LAAGGAQODL | RLCVGCGWVR | GRRTGRLRPA | AAPSAATA | GAPTALPAYP | 180 |
| | AAEPFGPLWL | QGBPLHFCCL | DPSLEELQGE | PGWRLEKKEI | ESTLVACFMT | LVIIVVSVAA | 240 |
| | LTPVPPIAG | FLPNGMEQRR | TTASTTAATP | AAVPAQTAA | AAAAAAAAAA | AVTSGVATK | 299 |

Seq ID NO: C330 Protein Sequence
Protein Accession #: XP_051522.2

| | | | | | | | |
|----|------------|------------|-------------|------------|------------|------------|-----|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 35 | MDLHLFDYSR | PGNPSDISWP | CNSSDCIVVD | TVMCPNMPNK | SVLLYTLSEI | YIFIFVIGMI | 60 |
| | ANSVVVWVNI | QAKITGYDTH | CYILNLAIAD | LWVVLTIPIV | VVSLVQHNQW | PMGELTCKVT | 120 |
| | HLIFSINLFG | SIFPLTCMSV | DRYLSTITYFT | NTPSSRKKMV | RRVVCILVWL | LAFCVSLPDT | 180 |
| | YILKTVTSAS | NMETYCRSEY | PEHSIKWLI | GMELVSVVLG | FAVPPSILAV | FYLLARAIAS | 240 |
| | ASSDQEKHS | RKIIFSYVVV | FLVCWLPYHV | AVLLDIFSIL | EYIPPTCRLE | HALFTALHVT | 300 |
| 40 | QCLSLVHCVC | NPVLVSFINR | NYRYELMKAF | IPKYSAKTGL | TKLIDASRVB | ETYSALBQS | 360 |
| | TK | | | | | | 362 |

Seq ID NO: C331 Protein Sequence
Protein Accession #: NP_000341.1

| | | | | | | | |
|----|------------|-------------|-------------|-------------|------------|-------------|------|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 45 | MGEVRQIQLL | LWKNWTLRKR | QRIRFVVVELV | WFLSLFLVLI | WLRNANPLYS | HHECHFPNKA | 60 |
| | MPGAGMLPWL | QQIFCNVNNP | CFQSPPTGES | PGIVSNYNN | ILARVYRDPQ | ELLMNAPESQ | 120 |
| | HIGRIWTELH | ILSQFMDTLR | THPERIAGRG | IRIRDILKDE | ETLTLFLIKN | IGLSDSVVYL | 180 |
| 50 | LINSQVRPEQ | PAHQVEDLAL | KDIACSEALL | ERFIIFSQRR | GAKTVRYALC | SLSQGTLLQWI | 240 |
| | EDTLVAVNDF | FKLFRVLPTL | LDSRSQGINL | RSWGGILSDH | SPRIQEFIHR | PSMQDLLAVT | 300 |
| | RPLMQNGGPE | TFPKLMGILS | DLLCGYPEGG | GSRVLSFNWY | EDNNYKAFLG | IDSTKDPYI | 360 |
| | SYDRRTTSPC | NALIQSLEEN | PLTKIAWRAA | KPLLMGKILY | TPDSPAARRI | LKNANSTPEE | 420 |
| | LEHVRKLVKA | NBEVGPQINW | FPDNTQMMN | IRDTLQNPVT | KDFLNRQLGE | BGITAEAILN | 480 |
| 55 | FLYKGFRESQ | ADDMANEDNR | DIFNITDRTL | RLVNOYLECL | VLEKFEFVND | ETQLTORALS | 540 |
| | LLEENMFVAG | VVFPDMYPWT | SSLPPHVYKY | IRMDIDVVEK | TNKIKDRYND | SGPRADPVED | 600 |
| | FRYTWGGPAY | LQDMVEGGIT | RSQVQABAFV | GIYLQMPFYP | CFVDSFMII | LNRCFFIFMV | 660 |
| | LAMIVSVSMT | VKSIVLEKEL | RLKETLKNQG | VSNNAVINCTW | FLDSFSIMSM | SIFPLTIFIM | 720 |
| | HGRILEYSDP | FILEFLILAF | STATIMLCFL | LSTFFSKASL | AAACSGVIYF | TLYLPHILCF | 780 |
| 60 | AWQDMYAEEL | KKAVSLSPV | AFGFGTEVLV | RFEEQGLGLQ | WSNIGNSPTE | GDEFSEFLSM | 840 |
| | QMILLDAACY | GLLAWYLDQV | FGDYGTPLP | WYFLQLQSYN | LSGEGCSTRE | ERALEKTEEL | 900 |
| | TEETEDPEHP | BGIHDEFFER | BHPGNVPGVC | VKNLVKIFEP | CGRPAVDRLN | ITFYENQITA | 960 |
| | FLCHNGACKT | TTLSILTLGL | PPTSGTVLVG | GRDIETSLDA | VRQSLGMCPQ | HNILFHHLTV | 1020 |
| 65 | AEBMLFYAQL | KGSQSEEAQL | EMRAMLEDTG | LEHKRNEEAQ | DLSGGMQRKL | SVAIAPVQDA | 1080 |
| | KUVILDEPTS | GVDPSYRRSI | WDLILLKYRSG | RTIIMPTEHM | DEADHQGDRI | ALIAQGRLYC | 1140 |
| | SGTFLFLKNC | FGTGLYLTIV | RKMKNIQSQR | KGSBGTCSCS | SKGFSTICPA | HVDDLTFEQV | 1200 |
| | LDGDVNELMD | VVLHHVPEAK | LVEICQELI | FLLPKNFKKH | RAYASLFREL | EETLADLGLS | 1260 |
| | SFGISDTPLE | EIFLKVTEDS | DSGPLFAGGA | QQKRENVNPR | HPCLGPREKA | GQTPQDSNVC | 1320 |
| | SGGAPAAHPE | GQPFPEPCP | GPQLWTGTQL | VLQHVQALLV | KRFQETIRSE | KDLAQIVLP | 1380 |
| 70 | ATFVFLALML | STVILPFGSY | PALTLPWYIY | GOQYTFESMD | EPGSEQFTVL | ADVLLNKGPF | 1440 |
| | GNRCLEKGNL | PEYECGNSTP | WKTSPSVSPNI | TQLFQRQKWT | QVNPSPSCRC | STREKLTMLP | 1500 |
| | RCPEGAGGLP | PFQRTQRSTE | ILQDLTDRI | SDFLVKTYPA | LIRSSGKSKF | WVNEQRYGGI | 1560 |
| | STGSKLFPVP | ITGALVWGLF | SOLGRDMNVS | GGPITREASK | HIPDFLKHLS | TEENIKVWEN | 1620 |
| | NKGHALYSF | LNVAAHALLR | ASLPKDRSPE | EXGITVIGQP | LNLTKQLSE | ITVLTTSVDA | 1680 |
| 75 | VVAICVIFSM | SEVPASVFLY | LIQERVNKEK | HLQFISGVSP | TTYVVTNFWL | DIMNYSVSAG | 1740 |
| | LUVGIFIGFQ | KRAYTSPENL | PALVALLILY | GWAVIPMYP | ASFLFDVPST | AYVALSCANL | 1800 |
| | PIGINSSAIT | FIYLSLFDNNR | TLRFPNAVLR | KLLIVFPFHC | LGRGLIDLAL | SQAVTDVYAR | 1860 |
| | PGEEHSANFP | EMDLIGKNLF | AMVVEGVVYF | LLTLVQRHF | PLSQWIAEPT | KEPIVDEDD | 1920 |
| | VAEERQRIIT | GQNKTDILRL | HELTAKIYLG | SSPAVDRLCV | GVRFGSCFGL | LQVNGAGKTT | 1980 |
| 80 | TFKMLTGDIT | VTSGDATVAG | KSILTNISEV | HQNMGYCPQF | DAIDELLTGR | EHLYLYARLR | 2040 |
| | GVPABIEIKV | ANWSIKSLGL | TVYADCLAGT | YSGCNKRKLS | TAIALIGCFP | LVLLDEBTTG | 2100 |
| | MDQARRMLN | NVIVSILRKG | RAVVLTSEHM | EECEALCTRL | AIMVKGAFRC | MGTIQHLKSK | 2160 |
| | FGDGIYVTMK | IKSPKDDLLP | DLNEVRFQFP | QNEPGSVQRE | RHYNMLQFQV | SSSLARIPQ | 2220 |
| | LLLSHEDSL | TEYSVTQTT | LQQVFNPAK | QQTESHDLPL | HPRAAGASRQ | AQD | 2273 |

Seq ID NO: C332 Protein Sequence
Protein Accession #: NP_006662.2

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5      1      11      21      31      41      51
      |      |      |      |      |      |
MVPHAILARG RDVCRNGLL ILSVLSVIVG CILGFFLRTR RLSPQEISYF QFPGELLMRM 60
LKMMLPLVV SSLMSGLASL DAKTSSRLGV LTVAYYLTNT FMAVIVGIFM VSIHFGSAA 120
QKETTEQSGK PIMSSADALL DLIRNMFAN LVEATFKQYR TKITPVVKSP KVAPREAPPR 180
10    RILYGVQEE NQSHVQNFAL DLTTPPEVVY KSEPGTSDGM NVLIGIVFFSA TMGIMLGRMG 240
DSGAPLVSPC QCLNESVMKI VAVAVNYFFP GIVFLIAGKI LEMDDPRAVG KKLGFYSVTV 300
VCGLVHLGLF ILPLLYFFIT KKNPIVFIRG ILQALLIALA TSSSSATLPI TPKCLLENNH 360
IDRIARFVL FVGATINMDG TALYEAVAAI FIAQVNNYEL DFGQIITISI TATAASIGAA 420
GIPOAGLVTM VIVLTSVGLP TDDITLIIAV DWALDRPRIM INVLGDALAA GIMAHICRKO 480
15    FARDTGTEKL LPCETKPVSL QEIVAAQONG CVKSVABASE LTLGFTCPHH VPVQVERDEE 540
LPAASLNHCT IQSELETNV

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Seq ID NO: C333 Protein Sequence
Protein Accession #: NP_005680.1

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20    1      11      21      31      41      51
      |      |      |      |      |      |
MVTGVNYCEA SGPVGPAMWQ DGLSPCFFFT LVPSTRMALG TLALVLALPC RRRERFAGAD 60
SLSWGAGPRI SPFVLQLLLA TLQAALPLAG LAGRVGTARG APLPSYILLA SVLESAGAC 120
25    GLWLVVERS QARQRLAMGI WIKFRHSPGL LLLWTVAFPA ENLALVSNMS PQWWRARADL 180
QQVQPSLWV LRYVVSGLLF VLGLWAPGLR PQSYTLQVHS EDQDVERSQV RSAAQQTWR 240
DFGRRLRLLS GYLWPRGSPA LQLNVLYICG LMGLERALNV LVPIFYRNTV NLLTERAPWN 300
SLAWTVTSYV FLKPLQGGGT GSTGFVSNLR TFLWIRVQQF TSRRVELLIF SHLHELRLW 360
HIGRTIGTVE RIADRGTSV TGLSLVLPN VIPTLADIII GLIYFSMFFN AMFGLIVFLC 420
30    MSLYLTLTIV VTEWRTKFRR AMNTQENATR ARAVDSLLNF ETVKCYNAES YEVEERYEAI 480
IKYQGLEWKS SASIVLLNQT QNLVIGLGLL AGSLLCAYFV TEQKLQVGDY VLPGYIYIQL 540
YMPINWFGTY YRMQITNFID MENMFDLLKE ETEVKDLPGA GLRFPQXGRI EFENVEFSYA 600
DGRRLQDVS ETVMPGQTIA LVGPGAGAKS TILRLLFEPY DISSGCIRID QDISQVTQA 660
35    SLRSHIGVVE QDTLFDNTI ADNIRYGRVT AGNDEVEAAA QAAGIHDAIM APFBGYRTQV 720
GERGLKLSGG EKQRVATART ILKAPGILL DEATSALDTS NERAIQASLA KVCANETITV 780
VAHRLSTVYN ADQILVIKDG CIVERGRHEA LLSRGGVYAD MWQLQQQEE TSEDITKPQTM 840
ER

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Seq ID NO: C334 Protein Sequence
Protein Accession #: NP_000667.1

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40    1      11      21      31      41      51
      |      |      |      |      |      |
MLLETODALY VALELVIAAL SVAGNVLVCA AVGTANTLQT PTNYFLVSLA AADVAVGLFA 60
45    IPFAITISLG FCTDPYGCLEF LACFVLVLTO SSIFSLAVA VDRYLAICVF LRYKSLVTGT 120
RARGVIAVLW VLAFGIGLTP FLGWNKSDSA TNNCTEPWDG TINESCCLVK CLFENVVPM 180
YMYVFNFFGC VLPPLLDMLV IYIKFLVAC RQLQRTLEMD HSRTTLQREI HAAKSLAMTV 240
GIFALCNLFP BAVNCVTLFQ PAQGNKPKW AMNMAILLSH ANSVVNPIVY AYENRDFRYT 300
50    FHKIISRYLL CQADVKSNG QAGVQPALGV GL

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Seq ID NO: C335 Protein Sequence
Protein Accession #: NP_443164

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55    1      11      21      31      41      51
      |      |      |      |      |      |
MGLGARGAWA ALLGLTLQVL ALIGAHESEA AMAETLQHPV SDHTNETSWS TVKPPTSVAS 60
DSSTTTVTIM KPTAASNTTT PGMVSTNMTS TILKSTPKTT SVSQNTSQIS TSTMTVTMS 120
SVTSAASSVT ITTTHSEAK KGRKFDTSF VGGIVLTLGV LSLYIGCKM YYSRRGIRYR 180
60    TIDEHDAII

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Seq ID NO: C336 Protein Sequence
Protein Accession #: NP_004186.1

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65    1      11      21      31      41      51
      |      |      |      |      |      |
MAQEGAMGAF BALCGLALLC ALSIGQRFTG GEGCGPGRLL LGTGYDARCC RVHTTRCCRD 60
YPGECCSEW DCMCVQPEFH CGDPCTTCR HHPCPPGQGV QSQKFSFGF QCIDCASGTF 120
SGGHSBGCKP WTDCTQFGFL TVFPQNKTHN AVCVPGSPPA EPLGWLTVV LAVAACVLL 180
70    TSAQLGLEIN QLRSCQMWPR ETQLLLEVPP STEDARSCQF PEERGERBSA EERGLGDLW 240
V

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Seq ID NO: C337 Protein Sequence
Protein Accession #: BAC03767.1

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75    1      11      21      31      41      51
      |      |      |      |      |      |
MGCDGRVSOL LERNLOPTLT YWSVFFSFG L CIAFLGPTLL DLRCQTHSSL PQISWVFFSQ 60
QLCLLGLSAL GGVFKRILAQ SLWALFTSSL AISLVFAVIP FCRDVKULAS VMALAGLAMG 120
CIDTVANNQL VRMYOKDSAV FLQVLHFFVG FGALLSPLIA DFFLSEANCL PANSTANTTS 180
80    RGLFRVSRV LGQHHVDAKP WSNQTFRGLT RKDGAGTRVS YAFWIMALID LEVPMVIML 240
LSKERLLTCC PORRPLLLSA DELALETOPP EKEDASSLPP KFOSHLGHED LPSCCQRKNL 300
RGAPYSFFAI HITGALVLEM TDGLTGAYSA FVYSYAVEKE LSVGHKVAGY LPSLFWGFTT 360
LGELLISIPS SRMKPATMVF INVVGVVTF LVLILFSYNV VFLFVGTSAL GLFLSSTFPS 420
MLAYTEDSLQ YKGCATTVLV TGAGVGSMVL QMLVGSIFQA QGSYSFLVCG VIFGCLAFTF 480

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YILLFFHFM HFGLPSVFTQ DRSIGMENSE CYQR

514

Seq ID NO: C338 Protein Sequence
 Protein Accession #: NP_002194.1

| | | | | | | |
|------------|------------|------------|-------------|-------------|------------|------|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MGPERTGAAP | LPILLVLALS | QGIILNCLAY | NVGLPEAKIF | SGPSSEQFGY | AVQQPINPKG | 60 |
| NALLVGSFWS | GFPENRMQDV | YKCPVDLSTA | TCEKLNLTQS | TSIPNVITEMK | TNMSLGLILT | 120 |
| ENMGTGGLT | CGPLWAQCCG | NQYVTTGVCS | DISPFDQLSA | SFSPATQPCP | SLIDVWVVC | 180 |
| ESNSIYPWDA | VKNFLKFKVQ | GLDIGPTKTQ | VGLIQYANNP | KVVFNLNTYK | TKKEMIVATS | 240 |
| QTSQYGGDLT | NTGAIQYAR | KYAYSAAASG | RRSATKVMV | VTDGESHGDS | MLKAVIDQCN | 300 |
| HNNILRFGLA | VLGYLNNAL | DTNLIKELIK | AIASITPTERY | FFNVSDAAL | LEKAGTLGEQ | 360 |
| IFSIETGVQ | GDNFQMEMSQ | VGFSDYSSQ | NDILMLGAVG | AFGWSGTIVQ | KTSHGHLIYP | 420 |
| KQAFDQILQD | RNHSYVLGYS | VAAISTGEST | HFVAGAPRAN | YTGQIVLYSV | NNGNITIVQ | 480 |
| AHRGDQIGSY | FGSVLCSVDV | DKDTITDVL | VGAPMYMSDL | KKEGGRVYLF | TIKKGILGQH | 540 |
| QFLGEPGEGE | NTRFCSAIAA | LSDINMDGFN | DVIVGSPLEN | QNSGAVYIYN | GHQGTIRTKY | 600 |
| SQKILGSDGA | FRLHLQYFGR | SLDGYGDLNG | DSITDVVIGA | FGQVVLWSQ | SIADVAIEAS | 660 |
| FYPEKITLVN | KNAQIILKLC | FSARFRPTKQ | NNQVAIVYNI | TLDADQFSSR | VTSRGLFKEN | 720 |
| NERCLQKNMV | VNAQSCPEH | IYIQEPESDV | VNSLDLRLVDI | SLENPGTSPA | LEAYSETAKV | 780 |
| FSIPFKDCG | EDGLCISDLV | LQVRQIPAAQ | EQPFIVSNQN | KRLTFSVTLK | NKRESAYNTG | 840 |
| IVVDSENLK | FASFSLEVDG | THVTCQVAAS | QKSVACDVGY | PALKREQQVT | FTINFDNLQ | 900 |
| NLQNGASLSF | QALSESQSEN | KADNLVNLKY | FLLYDAEHL | TRSTNINPYE | ISSDGNVPSI | 960 |
| VHSFEDVGP | FIFSLKVTIG | SVPVEMATVI | IHIPQYTKBK | NPLMYLTGVQ | TDKAGEIISN | 1020 |
| ADINELKIGQ | TSSSVSFKSE | NFRHTKELNC | RTASCNSVTC | WLKDVHMKGE | YFVNVTTRIV | 1080 |
| NGTFASSTFQ | TVQLTAAASI | NTYNPEIYVI | EDNTVTIPLM | IMKPDKARV | PTGVVIGSII | 1140 |
| AGILLALLLV | AILNKLGFPP | RKYKMTKNP | DEIDETTEL | S | | 1181 |

Seq ID NO: C339 Protein Sequence
 Protein Accession #: NP_113648.1

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|------------|------------|------------|------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MYRPRARAAP | EGRVRCGAVP | STVLLLLAYL | AYLALGTGVF | WTLGGRAAQD | SERSPQRDKN | 60 |
| ELLQNFCTID | KPALDSLIRD | VQAYKNGAS | LESENTSMGR | WELVGSFFPS | VSTITTIGYG | 120 |
| NLSNTMAAR | LFCTFFALVG | IPNLVVLNR | LGLHMQQGVN | HWASRLGGTW | QDFDKARWLA | 180 |
| GGGALLSGLL | LFLLLPFLLE | SHMEGWSYTB | GYFFAFITLS | TVGFGDYVIG | MNPSQRYPLW | 240 |
| YKNMVSMLIL | PGMAWIALII | KLILSQLETP | GRVCSCHHS | SKEDFKSQSW | RQGPDRPEPS | 300 |
| HSPQGGCTPE | GFMGIIQHLE | PSAHAAGCGK | DS | | | 332 |

Seq ID NO: C340 Protein Sequence
 Protein Accession #: NP_004145.1

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MEWDNGTGA | LGLPFTTCVY | RENEKQLLLP | PVYSAVLAAG | LPLANICVITQ | ICTSRRALTR | 60 |
| TAVYTLNLAL | ADLLYACSLP | LLIYNYAQGD | HWDFGDFACR | LVRFLFYANL | HGSILPLTCT | 120 |
| SPQRYLIGCH | PLAPWKRGG | RRAAWNCVA | VWLAVTTCCL | PTAIFPATGI | QRNRTVCYDL | 180 |
| SPPALATHYM | PYGMALTVIG | FLLPFAALLA | CYCLLACRLC | RQDGFAPFVA | QERRGKAARM | 240 |
| AVVAAAFAP | SFLPFLITKT | AYLAVRSTPG | VPCTVLEAFA | AAYKGTTPFA | SANSVLDPIL | 300 |
| FYFTQKKFRR | RPHELLQKLT | AKWQRQGR | | | | 328 |

Seq ID NO: C341 Protein Sequence
 Protein Accession #: NP_009128.1

| | | | | | | |
|-------------|------------|------------|------------|-------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MQRPGERLML | VLQVMGSCAA | ISSMDMERPG | DGKCPRIEIP | MCKDIGYNNMT | RMPNLMGHEH | 60 |
| QREAAIQLHE | FAPLVEYGCH | GHLRFFLCSL | YAPMCTEQVS | TPIPACRVMC | EQARLKCSPI | 120 |
| MBQENFKWFD | SLDCRKLQNK | NDPNYLCMEA | PNNGSDEPTR | GSGLFPPLFR | PQRPHSAQEH | 180 |
| PLKGGGPGRG | GCDNPGKFHE | VEKSASCAPL | CTEGVDVYHS | REDKRFAVW | LAIWAVLCFP | 240 |
| SSAPTVLITL | IDPARFRYPE | RPIIFLSMCY | CVYSVGYLIR | LPAGAESIAC | DRDSGQLYVI | 300 |
| QEGLESTGCT | LVFLVLYYFG | MASSLWNVVL | TLTWFLAAGK | KWGHEATEAN | SSYFHLAANA | 360 |
| IPAVKITILIL | WMREVAGDEL | TGVCYVSGMD | VNALTGFVLI | PLACYLVIGT | SFILSGFVAL | 420 |
| FHIRRYMKIG | GSNTDKLEKL | MVRIGLFSVL | YTVFATCVIA | CYFYERLNM | YWKILAAQHK | 480 |
| CKMNNQTKTL | DCLMAASIPA | VELFMVKIFM | LLVVGITSGM | WYWTSEKTLG | WQVCSSRELK | 540 |
| KKSRKPFASV | ITSGGIYKKA | QHPQRTTHGK | YEIPAQSPTC | V | | 581 |

Seq ID NO: C342 Protein Sequence
 Protein Accession #: NP_005752.1

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|------------|------------|------------|------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MEVSRRKAPP | RPPRPAAPLP | LLAYLLALAA | PGRGADEPVW | RSEQAIGATA | ASQEDGVFVA | 60 |
| SGSLDQLDLY | SHHSLSRLY | RDQAGNCTEP | VSLAPPARPR | PGSSFSKLLL | PYRBSAAGLG | 120 |
| GLLLTGWTFD | RGACEVRPIG | NLSRNSLRNG | TSVVSCHPQG | STAGVYVRAG | RNNRWYLAFA | 180 |
| ATVVLPEPET | ASRCNPAASD | HDYALALKDT | EGRSLATQSL | GRLLKCEGAG | SLHPVDALFW | 240 |
| NGSYFFPYYP | YNYTSGAATG | NPSMARIAGS | TEVLFQQAAS | LDCGHGHPDG | RRLLSSSLIV | 300 |
| EALDVWAGVP | SAAAGSGQGR | RSPTTALACL | FRMSEIQARA | KRVSWDFKTA | ESHCKSGDQP | 360 |
| ERVQPIASST | LHSDLTSTVY | GTVMNRITVL | FLATGQQLL | KVILGELNLS | NCPVITYEIK | 420 |
| EETVVFYKLV | PDVKNXIYIY | LTACKEVRII | RVANCMKEKS | CSECLTATDP | HCGWCHSELQ | 480 |
| CTPQGDVHS | ENLEWLOIS | SGAKKCPKIQ | IIRSSKEKTT | VTMVGFSFPR | HSCMVKVWD | 540 |
| SSRELQCNKS | QNRCTCTCSI | PTRATYKDV | VVNVMFSFGS | WNLSDRFNFT | NCSSLEKCPA | 600 |
| CVSTGCAWCK | SARRCIHPTT | ACDPSDYERN | QSQCPVAVER | TSGGGRPKEN | KGRRTNQALQ | 660 |
| VFYIKSIEPQ | KVSTLGKSNV | IVTGANFTRA | SNITMLKGT | STCDKDVIOV | SHVLNDTEMK | 720 |

FSLPSSRKEM KDVCIQFDGG NCSSVGSLSY IALPHCSLIF PATTWISGGQ NITMGRNFD 780
 VIDNLIISHE LKGNINVSEY CVATYCGFLA PSLKSSKVRT NVTVKLRVQD TYLDCGTLOV 840
 REDPRTFYR VESEVDTELE VKIQKENDNF NISKKDIEIT LFRGNGQLN CSFENITRNQ 900
 DLTILCKIK GIKSTASTIAN SSKKVRVKLG NLELYVEQES VPSTWYFLIV LPVLLVIVIF 960
 AAVGVTRHKS KELSRSQSQQ LELLESELKK EIRDGFAELQ MDKLDVVDSE GTVPFLDYKH 1020
 FALSTFFPES GGFTHIFTEO MHNRDANDKM ESLTALDALI CNKSPLVTVI HTLEKQKNFS 1080
 VKDRCLPASF LTIALQTKLV YLTSILEVLT RDLMEQCSNM QPKMLLRTE SVVEKLLINW 1140
 MSVCLSGFLR ETVGEPFYLL VTLNMQKINK GPVDVITCKA LYTLNEDWLL WQVPEPSTVA 1200
 LNVVFEKIPE NESADVCINI SVNVLDCDTI GQAKEKIFQA FLSEKNGSPYG LQLNEIGLEL 1260
 QMGTROKELL DIDSSSVILE DGITKLNTIG HYEISNGSTI KVFVKIANPT SDVEYSDDHC 1320
 RLILFDSFAF QDVQGRHRG KHKFKVKENY LTKLLSTKVA IHSVLEKLFK SIWSLPSNRA 1380
 PFAIKYFFDF LDAQAKNKI TDPDVVHINK TNSLPLRFVW NILKNPQVVF DIKKTPIHDG 1440
 CLSVIAQAFM DAFSLTEQQL GKEAPINKIL YAKDIPTYKE EVKSYKPAIR DLPPLSSEM 1500
 BEFLTQBSKK HENEFNEEVA LTEIYKIVK YFDEILNKLE RERGLEBAQK QLLHVXVLEF 1560
 EKCKCKWM 1568

Seq ID NO: C343 Protein Sequence
 Protein Accession #: NP_002176.1

1 11 21 31 41 51
 | | | | |
 NTILGTTFGM VPSLLQVVSG ESGYAQNGDL EDAELDDYSF SCYSQLEVNG SQESLTCARE 60
 DDPVNTTNLE FEICGALVEV KLINFRKLQE IYFIETKKFL LIGKSNICVK VGEKSLTCKK 120
 IDLTATVQPE APFDLSVIYR EGANDFVVTF NTSHLQKKYV KVLAMDVAYR QEKDENKMT 180
 VNLSTKILTL LQRKLQPAAM YEIKVRSIPD HYFKGFWSEW SPSTYFRTPE INNSSGEMDP 240
 ILTISILSF FSVALLVILA CVLWKKRIKP IVWPSLPDHK KLEHLCKKP RKNLNVSENP 300
 ESFLDCQIHR VDDIQRDEV EGFLODTFFQ QLESEKQRL GGDVQSNCP SEDVVVTFES 360
 FGRDSSITCL AGNVASADAP ILSSSRSLDC RESGKNGPHV YQDILLSLGT TNSTLPPPPS 420
 LQSGILLTNP VAQCGPILTS LGENQERAYV TMSSFYQNG 459

Seq ID NO: C344 Protein Sequence
 Protein Accession #: NP_002713.1

1 11 21 31 41 51
 | | | | |
 MAAARLCLSL ILLSTCVALL LQPLLGAQGA PLEPVYPGDN ATPBQMAQYA ADLERYINML 60
 TRPRYKGRHK EDTLAFSEWG SPHAAVPREL SPLDL 95

Seq ID NO: C345 Protein Sequence
 Protein Accession #: NP_115934.1

1 11 21 31 41 51
 | | | | |
 MTWRHEVRLL FTVSLALQII NLGNSYQREK HNGGREEVTR VATQKRRQSP INWTSSEHGE 60
 VTGSAPSGWE EEPLPYSRAP GEGASARPRC CRNGGTCVLG SFCVCPARFT GRVCEHDQRR 120
 SECGALEHGA WTLRACHLCR CYPGALHCLP LQTFDRCDPK DFLASHAHGP SAGCAPSILL 180
 LLPCALLHRL LRPDAPAHPR SLVPSVLQRE RRPCGRFGLG HRL 223

Seq ID NO: C346 Protein Sequence
 Protein Accession #: NP_006524.1

1 11 21 31 41 51
 | | | | |
 MARSLVCLGV IILLSAFSGP GVRGGPMFKL ADRKLCADQE CSHFISMAVA LDYMAEDCR 60
 FLTHRGQVV YVFSKLKRG RLEWGGSGVQG DYTGDLAARL GYFPSSIVRE DQTLKPKGV 120
 VKTDKNDFYC Q 131

Seq ID NO: C347 Protein Sequence
 Protein Accession #: Bos sequence

1 11 21 31 41 51
 | | | | |
 MTQVTEKSTE HPEKITSTTE KTRTPPEKPT LYSEKTICTK GKNTFVPEKP TENLGNITLT 60
 TETIRAPVKS TENPEKTAAY TKTIKPSVKV TGDKSLTTTS SHLNKTEVTH QVPTGSFTLI 120
 TSRTKLSSIT SEATGNESHP YLNKDGSKG IHAGQMGEND SFPANAIVIV VLVAVILLIV 180
 FLGLIFLVSY MMRTRRLITQ NTQYNDAEDB GGPNSYPVYL MEQQNLGMGQ IPSR 235

Seq ID NO: C348 Protein Sequence
 Protein Accession #: NP_543146.1

1 11 21 31 41 51
 | | | | |
 MTQVTEKSTE HPEKITSTTE KTRTPPEKPT LYSEKTICTK GKNTFVPEKP TENLGNITLT 60
 TETIRAPVKS TENPEKTAAY TKTIKPSVKV TGDKSLTTTS SHLNKTEVTH QVPTGSFTLI 120
 TSRTKLSSIT SEATGNESHP YLNKDGSKG IHAGQMGEND SFPANAIVIV VLVAVILLIV 180
 FLGLIFLVSY MMRTRRLITQ NTQYNDAEDB GGPNSYPVYL MEQQNLGMGQ IPSR 235

Seq ID NO: C349 Protein Sequence
 Protein Accession #: FGENSEH predicted

1 11 21 31 41 51
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|----|-------------|------------|-------------|-------------|-------------|-------------|------|
| 5 | MWRIAFCCW | GLALVSGWAT | FQQMSPSRNF | SPRLPPETAP | GAPGSIPAPP | APGDEAAGSR | 60 |
| | VERLQQAFFR | KVRLRLRELS | RLELVFLVDD | SSSVGEVNF | SELMFVRKLL | SDFFVVFAT | 120 |
| | RVAIVTF88K | NYVVRVYI | STRARQHKC | ALLQEIPIAI | SYRGGGYTK | GAPQQAQIL | 180 |
| | LHARENSTKV | VFLITDGYSN | GCDPRPIAAS | LRDSGVEIPT | FGIWQGNIRE | LNDMASTPK | 240 |
| | EHCYLLHSFE | EFEALARRAL | HEDLPSGSFI | QDDMVHC5YL | CDEGKDCDDR | MGSCKCGTHT | 300 |
| | GHFEICICEBK | YTGKGLQYEC | TACPSGTYKP | EGSPGGISSC | IPCDEENHTS | PPGSTSPFDC | 360 |
| | VCREGYRAGS | QTCELVHCPA | LKPPENGYFI | QNTCNNHENA | ACGVRCRPGF | DLVGSIIILC | 420 |
| | LPNGLWSGSE | SYCVRVTCPH | LKPPKHGHIIS | CSTRMLYKT | TCLVACDEGY | RLEGSCKLTC | 480 |
| 10 | QGNQWQDGF | PRCVRHCKST | FQMKDVIIIS | PHNCGKQPAK | FGTICVYSCR | QGFILSGVKE | 540 |
| | MLRCITSGKW | NVGQAAVCK | DVEAPQINCP | KDIEAKTLEQ | QDSANVTWQI | PTAKDNGSEK | 600 |
| | VSVHVHPAFT | PPYLPFICDV | AIVYATDLS | CNQASCIFEI | KVIDAEPPVI | DWCRSPPPVQ | 660 |
| | VSEKVAASW | DEPQFSDNSG | AELVITRSH | QGDLPFQGET | IVQYATDPS | GNRTCDIHI | 720 |
| | VKGSPPCEIP | PTPUNGDFIC | TPDNTGVNCT | LTCLEGYDFT | EGSTDKYCA | YEDGVWKPTV | 780 |
| 15 | TTWPDCAKK | RFANHGPKSF | EMFYKAARCD | DTDLMKGFSE | AFETTLGKMV | PSFCSDAEDI | 840 |
| | DCRLLENLTK | KYCLEYNYDY | ENGFAIGFEG | WGAANRLDYS | YDDPLDTVQE | TATSIGNAKS | 900 |
| | SRIKRSAPLS | DYKIKLIPNI | TASVPLPDER | NDTLEWENQQ | RLQLTLEIT | NKIKRTINKD | 960 |
| | PMYSQPLASE | LIADNSLSL | TKKASPPCRP | GSVLRGRMCV | NCPLGTYYNL | EHFTCESCRI | 1020 |
| | GSYQDEEGQL | ECICLCP8MY | TEYIHSRNI | DCKAQCKQGT | YSYSGLETCE | SCPLGTYYQPK | 1080 |
| 20 | FGSRSCLSQP | ENTSTVKKGA | VNLSACGVPC | DEKQF8R8GL | MFCHPCPRDY | YQPNAGKAPC | 1140 |
| | LACPFYGTTP | PAGERSITEC | STSVLINITIF | GGPGHLELLN | CFSEVFHECF | FNPCHNGGTC | 1200 |
| | QQLGRGYVCL | CPLGYTGKLC | ETDIDECSP | PCLNNGVCKD | LVGEFICRCP | SGYTQQRCE | 1260 |
| | NINECSSSPC | LWKGICVDGV | AGYRCTCVKG | FVGLHCETEV | NECQSNPCLN | NAVCEQVGG | 1320 |
| | FLCKCP8PGL | GTCLCKNVDE | CLSPQCKNGA | TCKDGANSPR | CLCAAGFTGS | ECCLNINECQ | 1380 |
| 25 | SNCRNQATC | VDRCLNSYCK | QCPGFSKRC | ETEQTGFNL | DEFVSGIYGY | VMLDGLRSL | 1440 |
| | HALTCTFMWK | SSDDMNNGTF | ISYAVDNGSD | NTLLLTIDYNG | WVLVYNGREK | ITNCP8VNDG | 1500 |
| | RWHIATITW | SANGIWKVYI | DGKLSDDGAG | LSVGLPIPGG | GALVLCQ8QD | KKGE8FSPAR | 1560 |
| | SPVGSISQNL | LWGIWLSFQ | VKSLATSCPE | ELSKGNVLAW | PDPLSGIVGK | VKIDSKSIFC | 1620 |
| | SDCPRLGG8V | PHLRTAS8DL | KPGSKVNLFC | DPGFQLVGNP | VQYCLNQ8QW | TQPLPHCBRI | 1680 |
| 30 | SGCVFPFLEN | GH8TAD8PYA | G8TVTYQCN | GYXLGD8RM | FCTDNG8WNG | V8P8CLD8DE | 1740 |
| | CAV8DC8SH | ASCLNV88SY | IC8CVFPYTG | D8KNCA8PIK | CKAPGN8PENG | 88888IYTVG | 1800 |
| | AGVTF8CQ8G | YQLMGVTKIT | CL88888NHL | IPYCKAV8CG | KPAIP8NGCI | 88888FT8G8K | 1860 |
| | VTYRCKNGYT | LW8888888 | AN8888888 | VCEPVK888P | ENINNGKYL | 888888888 | 1920 |
| 35 | Y88888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 1980 |
| | CK8888888 | DTIECLAD8K | W88888888 | V88888888 | 888888888 | 888888888 | 2040 |
| | D88888888 | LLCNA88888 | 888888888 | 888888888 | 888888888 | 888888888 | 2100 |
| | 888888888 | NT8888888 | 888888888 | 888888888 | 888888888 | 888888888 | 2160 |
| 40 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 2220 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 2280 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 2340 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 2400 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 2460 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 2520 |
| 45 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 2580 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 2640 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 2700 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 2760 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 2820 |
| 50 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 2880 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 2940 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 3000 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 3060 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 3120 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 3180 |
| 55 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 3240 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 3300 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 3360 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 3420 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 3480 |
| 60 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 3540 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 3557 |

Seq ID NO: C350 Protein Sequence
Protein Accession #: F88888 predicted

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|----|------------|------------|------------|------------|------------|------------|-----|
| 65 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | MRFSVSGMRT | DYPRSVLAPA | YVSVCLLLLC | PREVIAPAGS | EPMLCQ8APR | CGDKIYNPLB | 60 |
| | QCCYNDAIVS | LS8888888 | CTFWPCFELC | CLDSFGLTND | FVVKLVYQGV | NSQCH88888 | 120 |
| | 888888888 | | | | | | 129 |

Seq ID NO: C351 Protein Sequence
Protein Accession #: AAH35671.1

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|----|------------|------------|------------|------------|------------|------------|-----|
| 75 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | MYFGARGGGA | LARAAGRGLL | ALLAV8APL | RLQAS8L8DG | CGHLVYQDS | GTMT888888 | 60 |
| | TYPNHTVCEK | TITVFK8888 | ILRL888888 | SQTCAS8888 | PTSS888888 | YCG8888888 | 120 |
| | LL8888888 | RF8888888 | RG8888888 | DH8888888 | R88888888 | SK8888888 | 180 |
| | VAGDIS8888 | D88888888 | KAA888888 | DEL888888 | Q88888888 | ILANGV8888 | 240 |
| 80 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 300 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 360 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 420 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 480 |
| | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 888888888 | 539 |

Seq ID NO: C352 Protein Sequence
Protein Accession #: Eos sequence

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|------------|------------|------------|-------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | |
| MGFGAGQRLR | PVPAPRSSAE | EAARPGQLRL | GIRRGAEALA | KLAPSGVMVP | GARGGGALAR | 60 |
| AAGRGLLALL | LAUSAPLRLO | AEBLGDGCGH | LVTYQDSGTM | TSKNYPGTYP | NHTVCEKTTT | 120 |
| VPKGKRLILR | LGDLIDBSQT | CASDYLLFTS | SSDQYGFYCG | SMTVPKELLL | NTSEVTVRFE | 180 |
| SGSHISGRGF | LLTYASSDHP | DLITCLERAS | HYLKTEYSKF | CFAGCRDVAG | DISGNMVDGY | 240 |
| RDTSLLCKAA | LHAGIIADEL | GGQISVLQRK | GISRYEGILA | NGVLSRDGSL | SDKRFLFTSN | 300 |
| GCSRSLSEFP | DGQIRASSSW | QSVNESGDQV | HWSFGQARLQ | DQGPSWASGD | SSNNHKPREW | 360 |
| LEIDLGEKKK | ITGIRTTGST | QSNFNFYVKS | FVMNPKMNSG | KWKTYKGIVN | NEEKVFGQNS | 420 |
| NFRDPVQNNF | IPPIVARIYR | VVPQTHQRI | ALKVELIGCQ | ITQGNDSLVM | RKTSQSSTVS | 480 |
| TKKEDETITR | PIPSEETSTG | INITTVALPL | VLLVVLVFPAG | MGIFAAPFRK | KKRGSPYGSA | 540 |
| BAQKTDCKWQ | LKYPFAHQSS | AEPTISYDNE | KEMTQKLDLI | TSDMAG | | 586 |

Seq ID NO: C353 Protein Sequence
Protein Accession #: FGENSEH predicted

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| 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | |
| MFQRQERFLD | LSSAEAVAAM | ILEQHPDIIN | KGDGCGHLVT | YQDSGTMISK | NYRGTYYNHT | 60 |
| VCEKTIITVEK | GKRLILRLGD | LDIESQTCAS | DYLLFTSSSD | QYGMQKEEST | EVLCLSVAGA | 120 |
| QRVDIPVQLL | PSFLEBWKGH | ADARGPYCGS | MTVPKELLLN | TSEVTVRFES | GSHISGRGFL | 180 |
| LYASSDHLG | LITCLERAEG | YLKTEYSKFC | PAGCRDVAGD | ISGNMVDGYR | DTSLLCRAAI | 240 |
| HAGIIADELG | QQISVLQRKG | ISRYEGILAN | GVLSDGSLG | DKRFLFTSNG | CSRSLSEFPD | 300 |
| GQIRASSSWQ | SVNESGDQVH | WSPGQARLQD | QGPSWASGDS | SNNHKPEREWL | EIDLGEKKKI | 360 |
| TGIRTTGSTQ | SNFNFYVKSF | VMMNPKMNSK | WKTYKGIVNN | EEKVFGQNSN | FRDPVQNNFI | 420 |
| PPIVARIYRV | VQTHQRIIA | LKVELIGCQI | TQGNDSLVMR | KTSQSSTVST | KKEDETITRF | 480 |
| IPSEETSTDA | MFVQIVGDST | QMISQRENLG | FDEGKIFPKG | TAESMVRVVP | AVVNDLGMIL | 540 |
| FLAHTPEEDI | DHYCHKQIKY | PFAREQSAEF | TISYDNEKEM | TQKLDLITSD | MADYQQPLMI | 600 |
| GTGTVTRKGS | TFRPMOTDAE | EAGVSTDAGG | HYDCPQRAGR | HEYALPLAPP | EPEYATPIVE | 660 |
| RHVLRAHTFS | AQSGYRVPGP | QPGHKHSLSS | GGFSPVAGVG | AQDGDYQRPB | SAQPADRGYD | 720 |
| RPKAVASALAT | ESGHFDSQKP | PTHGTSDSY | SAPRDCITPL | NQTAMTALL | | 769 |

Seq ID NO: C354 Protein Sequence
Protein Accession #: NP_004607.1

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| 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | |
| MAGVSACIKY | SMFTFNFLFW | LOGILILALA | IWVRVNSDSQ | AIFGSEDVGS | SSYVAVDILI | 60 |
| AVGAIIMILG | FLGCCGAIKE | SRGMLLFFI | GLLLTLLQV | ATGILGAVFK | SKSDRIVNET | 120 |
| LYENTKLLSA | TGESEKQFQE | AIIVFQEEFK | CCGLVNGAAD | NGNNFQHYFE | LCACLDKQRP | 180 |
| CQSYNGKQVY | KETCIGFIKD | FLAKNLIIVI | GISEGLAVIE | ILGLVFSMVL | YQQIGNK | 237 |

Seq ID NO: C355 Protein Sequence
Protein Accession #: NP_004608.1

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|------------|------------|------------|------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | |
| MCTGGCARCL | GGTLIPLAFF | GFLANILFF | PGGKVIDDND | HLQQHWFPG | GILGSGVIMI | 60 |
| FPALVFLGLK | NNDCGCGCN | EGCGKRFAMF | TSTIFAVVGF | LGAGYSFIIS | AISINKGPKC | 120 |
| LMANSTMGYP | FEDGDYLNDE | ALMNKCREPL | NVVPNNLTFL | SILLVVGIIQ | MVLCAIQVNN | 180 |
| GLLGTLGSDC | QCCGCCGSDG | PV | | | | 202 |

Seq ID NO: C356 Protein Sequence
Protein Accession #: NP_002372.1

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|------------|------------|------------|------------|-------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | |
| MFRPAPARRL | PGLLLILWPL | LLLESAAPDP | VARPGFRRL | TBGPGGSPGR | RPSFAAPDGA | 60 |
| PASGTSEPRG | ARGAGVCKSR | PLDLVFIIDS | SRSVRPLEFT | KVKTFFVSRII | DTLDIGPADT | 120 |
| RVAVVNYAST | VKIRFQLQAY | TDKQSLKQAV | GRITPLSTGT | MSGLAIQTAM | DEAFTVEAGA | 180 |
| REPSNIPKVF | AIIVTDGRPQ | DQVNEVAARA | QASGIELYAV | GVDRADMASL | KMMASEPLEE | 240 |
| HVFYVETYG | TERLSSRFQE | TFCALDPCVL | GTRQCQHVCI | SDGEGKHCE | CSQGYTLNAD | 300 |
| KKTCGALDRC | ALNTHGCEHI | CVNDRSGSYH | CECYEGYTIN | EDRKYCSAQD | KCALGTHGCQ | 360 |
| HICVNDRTGS | BHCECYEGYT | LNADKKTCSV | RDKCALGSHG | CQHICVSDGA | ASYHCDQYCP | 420 |
| YTINEDKRTC | SATEBARRLV | STEDACGCEA | TLAPQDKVSS | YLQRLNTKLD | DILEKDKINE | 480 |
| YGQIRH | | | | | | 486 |

Seq ID NO: C357 Protein Sequence
Protein Accession #: NP_057723.1

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|-----------|-----------|------------|------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | |
| MARGSLRRL | RLVLGLWLA | LLRSVAGEQA | PGTAPCSESG | SHSADLOKCM | DCASCRRAPH | 60 |
| SDFLGCAAA | FPAPFRLWF | ILGALSULTF | VLGLLSQFLV | WRRCRREKFP | TPPIETGGE | 120 |
| GCPAVALIQ | | | | | | 129 |

Seq ID NO: C358 Protein Sequence
Protein Accession #: NP_001810.1

1 11 21 31 41 51
 MQPTLLLSLL GAVGLAAVNS MPVDNRNHNH GMVTRCTIEV LSNALSKSSA PPITPECRQV 60
 LKTSRKDVKD KETTENENTK FEVRLLRDPD DASEAHSSSS RGEAGAPGEE DIQGGTKADT 120
 5 EKWAEGGGHSS RERADSEQNS LYPDSQSVSE EVKTRSEKSS QREDEEEEGG ENYQKGERGE 180
 DSSPEKHLEE PCGTQNAFLN ERKQASAIKK EELVARSETH AAGHSQSKTH SREKSSQESG 240
 KEAGSQENHP QESKGGQPRSQ ESEEGEEDA TSEVDKKRTR PRHHHGRSRP DRSSQGGSLP 300
 SESKGHQPES SEESNVSMAS LGEKRDHHSY HYRASEEPE YGEIKGYPG VQAPDLWE 360
 10 RYRGRGSEY RAPRPQSEES NDEEDKRNYP SLELDKMAHG YGESSEEEERG LEPGKGRHHR 420
 GRGGEPRAYF MSDTREKRF LGECHHRVQE NQMDKARRHP QGAWKELDN YLYNGESGAP 480
 GKWQQQGDLO DTKENREAR FQDKQYSSHH TAEKKRKLGE LFNFYDPLQ WKSSHFERRD 540
 NMNDNFLBGE EENELTLNEK NFFPEYNIDW WEKPFSESDV NWGYEKRLA RVPKLDLKRQ 600
 YDRVAQLDQL LHYRKSAAEP PDFYDSEEPV STEQEAENEK DRADQTVLTE DEKKELENLA 660
 15 AMDLHLQKIA EKFSQRG 677

Seq ID NO: C359 Protein Sequence
 Protein Accession #: XP_093082.1

1 11 21 31 41 51
 MKLLCEGLKQ PNCVLQTLRW YRCLISSASC GALAAVLSTB QWLTELEFSE TKLEASALKL 60
 LYGGSLKDPNC KLOQLNLQFS LSVTAAKLPV GMVGNCSGFS GSLVQSHFGY CQDSSPKCDL 120
 CKLLWPSRKY AARDCGSPK SFLSEGLNWA GRLEAVEEVL GLGLVLVQPD PASQGGGHC 180
 25 NYGSRDLVD LEVKAEPSELR KGGMDLQRP LQVLLCKIF SLKLEFLIAL PMSFGQVSVV 240
 QVTIPDGVM VTVGSNVTI CIYTTIVASR EQLSIQWSEF HKKEMEPISS PWEKGPWDV 300
 EAVKGTLDGQ QRELQIYFSQ GQQAVALGQF KDRITGSNDP GNASTITISEM QPADSGIYIC 360
 DVNNPDPFLG QNQLNLNVSV LVKPSKPLCS VQGRPETGHT ISLSCLSAIG TSPFVYVHK 420
 LEGRDIVPVK ENFNPTTGIL VIGNLTNFEQ GYQCTAINR LGNSSCSIDL TSSHPVGLI 480
 30 VGALIGSLVG AAILISVVCF ARNKAKAKAK ERNSKTIAEL EPMTKINPRG RSEAMPREDA 540
 TQLEVTLPSS IHETGPDITQ EPDYEPKFTQ EPAPPEPAGS EPMVAPDLDI ELELEPETQS 600
 ELEPEPEPEP ESEPGVVVEP LSEDEKGVVK A 631

Seq ID NO: C360 Protein Sequence
 Protein Accession #: FGENSEH predicted

1 11 21 31 41 51
 MVPAFWKVL ILSCLAGQVS VVQVTIPDGF VNVTVGSNVT LICITYTTVA SREQLSIQWS 60
 FFHKKEMEPI SSPWEKGWPF DVRAVKGTLG GQQAELQIYF SQGGQAVAILG QFKDRITGSN 120
 40 DPGASITIS RMQPADSGIY ICDVNNPDP LQNGQGLNV SVLVKPSKPL CSVQGRPETG 180
 HTISLSCLSA LGTPSPVYVY HKLEGRDIVP VKENFNPTTG ILVIGNLTNF EQGYQCTAI 240
 NRGNSSCIEI DLTSHPPEVG IIVGALIGSL VGAAIISVVF CFARNKAKAK AKERNKTLA 300
 ELSPMTKINP RQESAMPRE DATQLEVTLP SSTHETGPD TQEPDYEPK TQEPAPPEP 360
 45 GSEPMVAPDL DLNVAKKS SV EPESEPGVVV EPLSEDEKGV VKA 413

Seq ID NO: C361 Protein Sequence
 Protein Accession #: NP_003011.1

1 11 21 31 41 51
 MVSRMVSTML SGLLFWLASG WTPAFAYSFR TPDRVSEADI QRLHGVMEQ LGIARPRVEY 60
 PAEQAMNLVG PQSISGGAHE GLQHLGPPGN IPNIVAEITG DNIPKDFSED QGYDPPNFC 120
 FVGKTDGCL ENTPTDAPPS REFQLQHLEF DPEKDYPLG KWKMKLLYEK MKGGERRKR 180
 55 SVNPLYQGQR LDNVVAKKS V EHSDEKDP E 211

Seq ID NO: C362 Protein Sequence
 Protein Accession #: NP_076926.2

1 11 21 31 41 51
 MTTHQCEQA MPQAGPGVPQ LGNMAVIRSH LNKGLQEKPL KGEKVLGVV QILTALMSLS 60
 MGIITMCMAS NTYGSNPISV YIGYTIWGSV MFIISGSLSI AAGIRTTKEL VRGSLGMNIT 120
 SSVLAASGIL INTFSLAFYS FHHPYCNYG NSNNCEGMS ILMGLDGMVL LLSVLEFCIA 180
 65 VSLSAFSGKV LCCTPGGVVL ILFSSHMAE TASPTPLNEV 220

Seq ID NO: C363 Protein Sequence
 Protein Accession #: NP_002082.1

1 11 21 31 41 51
 MRGSELPLVL LALVLCIAPR GRAVPLPAGG GTVLTMYPR GNENAVGHLN GKXSTGES9S 60
 VSRGSLKQQ LREYIRNESA ARNLLGLIEA KENRNHQFPQ PKALGNQPS WSEDSNFK 120
 70 DVGSKGVGR LSAPGSQREG RNPQLNQ 148

Seq ID NO: C364 Protein Sequence
 Protein Accession #: NP_036393.1

1 11 21 31 41 51
 MDLQGRGVPS IDRLRVLLML FHTMAQIMAE QEVNLSGLS TNPEKDIFVV RENGTCLMA 60
 SFAAKPIVY DVWASNVVDL ITEQADIALT RGAEVKRCG ESQSELQVFW VDRAYALKML 120
 FVKESHNSK GPEATNRLSK VQFVYDSSEK THPKDAVSAG KHTANSEHLS ALVTPAGKSY 180
 80 ECQAQQTISL ASSDPQKTVT MILSAVHIQ FDIISDFVS EEHKCPVDER BQLEETPLI 240
 LGLITGLVIM VTLAIYVHH KMTANQVQIP RDRSQYKMG 280

Seq ID NO: C365 Protein Sequence
Protein Accession #: NP_003217.1

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1      11      21      31      41      51
|      |      |      |      |      |
MLGLVLALLS SSSABEYVGL SANQCAVPAK DRVOCGYPHV TPKECNKRGK CPDSRIPGVP 60
WCFKPLTRKT ECTP                                     74

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Seq ID NO: C366 Protein Sequence
Protein Accession #: NP_002984.1

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1      11      21      31      41      51
|      |      |      |      |      |
MSLPSSRAAR VPGPSGLCA LLALLLLLTG PGPLASAGPV SAVLTELRCT CLRVTLRVNF 60
KTIGKLQVFF AGPQCSKVEV VASLKNKQV CLDFEAPFLK KVIQKILDG MKGN 114

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Seq ID NO: C367 Protein Sequence
Protein Accession #: NP_005233.2

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1      11      21      31      41      51
|      |      |      |      |      |
MRSPSAANLL GAAILLAASL SCSGTIQGTN RSSKGRSLIG KVDGTSEVTG KGVTVETVPS 60
VDFPSASVLT GKLTTFVLPV VTIIVFVVLG PSNGMALWVF LFRTEKCKHPA VIYMANLALA 120
DLLSVIWEPL KIAYHIHANN WYGEALCNV LIGFFYGNMY CSILFMICLS VQRYWVIVNP 180
MSHGRKKANI AIGISLAIWL LILLVTIPLY VVKQTFIPA LNITTCDDVL PQQLLVGDMF 240
NYFLSLAIGV FLFPALFAS AVVLMIRMLR SSAMDENSEK KRKRAIKLIV TVLAMYLICF 300
TPSNLLLVVH YFLIKSQGQS HVYALYIVAL CLSTLNSCID PFVYVYVSHD FRDHAKNALL 360
CRSVATVVKM QVSLTSEKHS RKSSSYSSSS TTVKTSY 397

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Seq ID NO: C368 Protein Sequence
Protein Accession #: NP_003460.1

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1      11      21      31      41      51
|      |      |      |      |      |
MAEAKTHWLG AALSLIPLIF LI9GAEAASF QRNQLLQKEP DLRLNVQKPF PSFEMIRALE 60
YIENLRQQAQ KEESSPDYNP YQGVSUPLQQ KENGDSHLP ERDSLSEEDW MRIILEALRQ 120
AENEPQSAFK ENKPYALNSE KNFPMDSDD YETQWNPERK LKEMQFPFMY EENSNDNPFK 180
RTNEIVEEQY TPQSLATLES VFQELGKLTG PNNQKRERMD BEQKLYTDD EDDIYKANNIA 240
YEDVVGSEDW NPVSEKIBSQ TQBEVRDSKE NIGKNEQIND EMKRSQGLGI QBEDLREKESK 300
DQLSDDVSKV IAYLKLNVNA AGSGLQNGQ NGERATRLFE KPLDSQSIYQ LIEISRNLQI 360
PFEDLIEMLK TGERKNGSVE PERELDLVD LDDISEADLD HEDLFQNRML SKSGYPKTPG 420
RAGTEALPDG LSVEDIWLL GMSSAANQKT SYFFNPYNQE KVLRLPYGA GRSRNQLPK 480
AANIPIHVENR QMAYBNLNDK DQELGEYLAR MLVKYPIIN SNQVKRVPGQ GSSEDLLQES 540
EQIEQAIKEH LNQSSSQETD ELAPVSKRFP VGPPKNDTTP NRQYWDDELL MKVLSYLNQE 600
KAEKGRHIA KRAMENM 617

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Seq ID NO: C369 Protein Sequence
Protein Accession #: NP_112217.1

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1      11      21      31      41      51
|      |      |      |      |      |
MPCAQRSNLA NLSVVAQLLN FGALCYGRQP QPGPVRFPPDR RQEHPIKGLP KYHVVGPRV 60
DASGHFLSYG LHYPTTSRR KRDLGSEEW VYIRISHEEK DLFFNLTVNQ GPLSNZYIME 120
KRYGILSEVK MNASAPLCH LSGTVLQQT RVGTAAASAC HGLTGFFQLP HGDFFIEPVK 180
KHPLVGGYH DHIVYRQKV PETKEPTCGI KDSVNISQK ELWREKNERH NLPSRLSRR 240
SISKERNVET LVVADTKIE YHGSENVESY ILTIMMVITG LFHNFESIGNA IHIVVRLIL 300
LEBEEQGLKI VHAARKTLSS FCKWQKSNP KSDLNPFVHD VAVILLTRKDI CAGFMPCET 360
LGLSHLSGMC QPERSCNDE DSGPLAFTI AHELGHSPGI QEDGKENDCE FVGREPYIMS 420
RQLQIDPTPL TWSKCSSEYI TRFLDRGWGF CLDDIPKKG LKSKVIAPGV IYDVHQCQL 480
QYGPWATFQ EVENVCTLW CSVKGFCBK LDAAADGTQC GEKKNCMAGK CITVGGKPS 540
IPGCGWGNP WSHCSRTCSA GVQSAERLCN NPEFKVGKY CTGERKRYL CNVHPCRSEA 600
PTFRQMCSE FDTVPYKML YHWFPIENPA HPCELVCRPI DQQPSKMLD AVIDGTPCFE 660
GGMSRNVGIN GICKMVGCDY KIDSNATEDR CGVCLGDSB CQTVRKMFQ KEGSGYVDIG 720
LIPKARDIR VMEIAGANF LAIRSEDEK YYINGGFLIQ WNGNYKLAGT VFQYDRKDL 780
EKLNATGPTN ESWIQLLFQ VTNPGIKYEX TIQKGLDND VEQMYFWQYG HWTECSVTCG 840
TGIRRTAHK IKKGRGVKA TFCDFETQPN GRQKKCHKA CDFRWAGEN EACSATCGPH 900
GEKKRTVLCI QTMVSDQAL PFTDCQLLK PKYLLACND ILCPSDWTVG NWSCEVSCG 960
GGVRIASVTC ANHDEPCDV TRKPNRSLC GLQCCPSRR VLKPNKGTIS NGKNPPTLKP 1020
VPFPTSRPM LTPITGPEM STSTPAISSP SPTASKSGD LGGKQWQDS TQPELSSRYL 1080
ISTGSTSQPI LTSQSLSIOP SEENVSSDT GPTSEGLVA TTSQSGLS SRNPITWPT 1140
PFYNTLTKEP EMEIHSQSGE SREQPEDKE SNEVIHTKIR VEGNDAPVES TEMPLAPPLT 1200
PDLSSSWWP PFSTVMEGLL PSQRTTSET GIPRVEGMYT EKPANTLLPL GGDHQPEPSG 1260
KTANRNHLKL PNNMQTKSS EPVLTEEDAT SLITEGFLN ASNYKQLTNG HGSAMHIVGN 1320
WSCESTTCGL GAYWKRVECT TQMSDCAAI QRDPDAKRC LRPCAGWKG NWSKCSRNC 1380
GGFKIRIKQ VASRQFLAGI PPPLSMSCN EPCEANQVFP WSQCSRSCGG 1440
GVQSGVFCE GGLCWTTRP TSTMSCNEHL CCHWATGMD LCSTSCGGG QKRIVQCVPS 1500
BGNKTEDQD CLCDEKPRFP EFKKCNQAC KKSADLLCTK DKLSSPFCQT LKAMKCSVP 1560
TVRAECFPC PQTHHTTQR QRRQLQKS KEL 1593

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Seq ID NO: C370 Protein Sequence
Protein Accession #: NP_001053.1

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1      11      21      31      41      51

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| | | | | | | | |
|----|--|-------------|-------------|------------|-------------|------------|------|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| | NRQSHQLFLV | GLLLFSPIPS | QLCEICEVSE | ENYIRLKLPL | NTMIQSNYNR | GTSAVNVLVS | 60 |
| | LKLVGCIQIT | DMQKMIQIK | YNVKSRLSDV | SSGELALIL | ALGVCRAEE | NLIYDYHLTD | 120 |
| 5 | KLENKFAEI | ENMEAHNGTP | LINYYQLSLD | VLALCLFNGN | YSTAEVNVHF | TPENKNYIFG | 180 |
| | SQFSUDTGAM | AVLALTCVKK | SLINGQIKAD | EGSLKNISY | TKSLVEKILS | EKKENGICGN | 240 |
| | TFSTGEAMQA | LFVSSDYNE | NDWNCQQTIN | TVLTBISQGA | FSNFMAAAQV | LPALMGKIFL | 300 |
| | DINKOSSCVS | ASGNFNISAD | EPITVTPFDS | QSYISVNYSV | RINETYFTNV | TVLNGSVFLS | 360 |
| | VMEKAQKMD | TIFQFTMBER | SWGPIYITCIQ | GLCANNNDRT | YWELLSSGEP | LSQAGSYVY | 420 |
| 10 | RNGENLEVRW | SKY | | | | | 433 |
| | Seq ID NO: C371 Protein Sequence Protein Accession #: NP_004582.1 | | | | | | |
| 15 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | MCCTKSLLLA | ALMSVLLHL | CGSEBAASNF | DCCLGYTDRI | LHPKFIVGFT | RQLANEGCDI | 60 |
| | NAIIFHTKKK | LSVCANPKQT | WKYIVRLLS | KKVIGNM | | | 96 |
| | Seq ID NO: C372 Protein Sequence Protein Accession #: NP_037403.1 | | | | | | |
| 20 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | MAGSFLLNWP | RAGGVGLLV | LLLGLPRFPF | ALCARPVKEP | RGLSAAAPPL | AETGAPRRFR | 60 |
| 25 | RSVPRGEAAG | AVQELARALA | HLLEAERQER | ARAEQAQED | QQAIVLAQLL | RVWGAPRNSD | 120 |
| | PALGLDDDPD | APAAQLARAL | LRRLDPAL | AAQLVPAPVP | AAALRPPEV | YDDGPAQPD | 180 |
| | EEAGDETPOV | DFELLRYLLG | RILAGSADSE | GVAAPRRLRR | AADHDVGSSEL | PPSGVLGALL | 240 |
| | RVKRLTPAP | QVPARRLLFP | | | | | 260 |
| 30 | Seq ID NO: C373 Protein Sequence Protein Accession #: NP_002236.1 | | | | | | |
| 35 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | NLQSLAGSSC | VRLVERHRS | WCFGLVIGY | LLYLVPQAVV | FSSVELPYED | LRLQELRLK | 60 |
| | RRFLEHEHCL | SEQQLEQFLG | KVLEASNYGV | SVLENASGNW | NWDFTSALFF | ASTVLSTTGY | 120 |
| | GHTVPLSDGG | KAFCLIIYVI | GIDFTLLFLT | AVVQRTVHV | TRRPVLYFHI | RWGFSGQVVA | 180 |
| | IVHAVLLGFV | TVSCFFPIPA | AVFSVLEDDW | NFLESPTFCF | ISLSTIGLGD | XVPGSGYNQK | 240 |
| 40 | FRELYKIGIT | CYLLGLLIAM | LVVLETFCEL | HELKRFERMF | YVKDKDDEDQ | VHIIEDQLS | 300 |
| | FSSITDQAG | MKEDQKQNEP | FVATQSSACV | DGPANH | | | 336 |
| | Seq ID NO: C374 Protein Sequence Protein Accession #: NP_005463.1 | | | | | | |
| 45 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | METTINGTETW | YESIHAVLKA | LNATLESNLL | CRPGGLGPD | NQTEERRASL | PGRDDNSYMY | 60 |
| | ILFVMFLFAV | TVGSLILGYT | RSRKVDKRS | PYHVYIKRW | SMI | | 103 |
| 50 | Seq ID NO: C375 Protein Sequence Protein Accession #: NP_005236.1 | | | | | | |
| 55 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | MGRRLALLLL | LLLLFQHFGD | SDGSQRLEQT | PLQFTHLEYN | VTQENSAAK | TYVGHFVRMG | 60 |
| | VYITHPANEV | RYKIVSGDSR | NLFKAHEYIL | GDVCFRLIRT | KGNATILNR | EVKDHITLIV | 120 |
| | KALEKNTNVE | ARTKVRVQVL | DINDLRPLFS | PTSYSVSLPE | NTAITSIR | VSATDADIGT | 180 |
| | NGEFYYSFKD | RTDMFAIHPT | SGVIVLTGRL | DYLETKLYEM | EILAADRCMK | LYGSSGISMS | 240 |
| 60 | AKLTVHTEQA | NFCAPVITAV | TLSPELDRD | PAYATVDD | CDQGANGLA | SLSVAGDAL | 300 |
| | QQRTVRSFP | GSKEYKVKAI | GDIDWDSHPF | GYNLTQAKD | KGTTPQFSSV | KVHVTSPOF | 360 |
| | KAGEVKEFKD | VYRAEISEFA | PPNTPVVMVK | ALPAYSLRY | VFKRTPGKAK | FSLNXTGLI | 420 |
| | SILEPVKRQQ | AAHFELEVTI | SDRKASTKVL | VKVLGANSNP | PEPTQTAYKA | AFDENVPIGT | 480 |
| | TIMLSAVDP | DEGENYVTV | SIANLHVVF | ALIBETGAVS | TSENLDYELM | PRVYTLRIRA | 540 |
| 65 | SDWGLFYRRE | VEVLATITIN | NLNDNTPLFE | KINCEGTIPR | DLGVGEQITT | VSAIDADEIQ | 600 |
| | LVQVQIEAGN | ELDLFSLNPN | SGVLSLKRSL | MDGLGAKVSP | HSLRITATDG | ENFATPLYIN | 660 |
| | ITVAASHKLV | NLQCBETGVA | KMLAKKLLQA | NKLHNQGEVE | DIFEDSHSVN | AHIPQFRSTL | 720 |
| | PTGIQVKKENQ | PVGSSVIFMN | STDLDTGPNQ | KLVAVSGGN | EDCFMIDME | TGMLKLLSPL | 780 |
| | DRETTDKYTL | NITVYDLGIP | QKAARLLLEV | VVDANDNPP | EFLQSSYFVE | VSEDEKVHSE | 840 |
| 70 | LIQVEATDKD | LGPNGBVTYS | ILTDITTFGI | DSVTGVVNIA | RPLDRELQHE | HSLKLEARDQ | 900 |
| | AREKEQLFST | VVVKVSLQDV | NDNPTTFIFP | NYRVKVEDL | PEGTVMWLS | AHDFDLGQSG | 960 |
| | QKRYSLLDHG | EGNFDVQKLS | GAVRIVQQLD | FEKQVYVNL | VRAKDQKGPV | SLSDTCYVEV | 1020 |
| | EVVDVNNELH | PPVFSFVEK | GTVKEDAPVG | SLVMTVSAHD | EDAGRDGEIR | YSIRDGSGVG | 1080 |
| | VFKIGERTGV | IETSDRLDR | STSEYWLTVF | ATDQGVVPLS | SFIEIYIEVE | DVNDNAPQTS | 1140 |
| 75 | EPVYFPEIMS | NSPKDVSVVQ | IRAFDPDSSS | NDKLMYKITS | GNPQGFSSIH | PKTGLITTS | 1200 |
| | RKLDRQODE | HILEVTVDN | GSPPKSTIAR | VIVKILDEND | NKPQFLQKPY | KIRLPEREKP | 1260 |
| | DRENRARRE | LYRVIAITDK | EGENARISYS | IEDGNEHGK | FIEPKTGVS | SKRFSAGEY | 1320 |
| | DILSKAVDN | GRQKSSSTR | LHIEWISKPK | QSLPTSFEE | SFTFTVMES | DPVAHMIGVI | 1380 |
| | SVEPPGIPLM | FDITCGNYDS | HFDVDKGTGT | LIVAKPLDAE | QKSNYNLTVE | ATDGTITILT | 1440 |
| 80 | QVFIKVIDTN | DHPPQFSTSK | YKVVIPEDTA | PETELQISA | VQDEKNKLI | YTLQSSKPL | 1500 |
| | SLKKEFLDPA | TGSLYTSEKL | DHEAVSPAIL | TVMVRDQVVP | VKRNFAIRIV | NVSDTNDHAP | 1560 |
| | WFTASSYKGR | VYESAAVGSV | VLQVTALDKD | KGNNAEVLVS | IESGNIGNIG | NSPMIDPVLG | 1620 |
| | SIKTAKELDR | SNQAEYDLMV | KATDKGSPFM | SEITSVRIEV | TIADNASPKF | TSKEYSVELS | 1680 |
| | ETVSGISFVG | MVTAEBSQSSV | VYEKDGNTG | DAFDINPSSG | TIITQKALDF | ETLPIYTLII | 1740 |
| | QGTNMAGLST | NITVLVHLQD | ENDNAPVFMQ | AEYTGILISE | ASINSVVLTD | RNVPLVIRAA | 1800 |

| | | | | | | | |
|----|------------|------------|------------|------------|-------------|-------------|------|
| | DADKDSNALL | VYHIVEPSVH | TYFALDSSTG | AIHTVLSLDY | ESTSIFHSTV | QVHDMGTPRL | 1860 |
| | FAEYAAVTV | HVIDINDCP | VPAKPLYEAS | LLLPTYKGVK | VITVNATDAD | SSAFSGLIYS | 1920 |
| | ITEGNIGKFF | SMQYKTGALT | VQMTTQLRSR | VELTVRASDG | RFAGLTSEVKI | NVKESKESHL | 1980 |
| 5 | KFTQDVYSAY | VKENSTEAST | LAVITAIGSP | INEPLFYHIL | NPDRRFKISR | TSGVLSTTGT | 2040 |
| | PFDREQQEAF | DVVVEVIEBH | KPSAVAHVVV | KVIVEDQNDN | APVFVNLEYY | AVVKVDTEVG | 2100 |
| | EVIRYVTAVD | RDGGRNGEVH | YYLKEHHEHF | QIGPLGEISL | KKQPELDTLN | KEYLVTVVAK | 2160 |
| | DGGNPAFSAE | VIVPIVMNK | AMPVFKEPPY | SARIAESIQQ | HSPFVHVQAN | SPBGLKVIFY | 2220 |
| | ITDGDFFSQF | TINFNTGVIN | VIAPLOFEAH | PAYKLSIRAT | DSLGTGAHAEV | FVDIIVDDIN | 2280 |
| 10 | DNPPVFAQQS | YAVTLSEASV | IGTSVVQVRA | TDSDSEPNRG | ISYQMFQNHES | KSHDHPHVD | 2340 |
| | STGLISLLRT | LDYQSRQHT | IFVRAVDGGM | FTLSSEVIVT | VDDTDLNGNP | PLPEQQIYEA | 2400 |
| | RISSEHAPHG | FVTCVKAYDA | DSSDIDKLQY | SILSGNDHKK | FVIDSATGII | TLSNLHREHAL | 2460 |
| | KPFYSLNLSV | SDGVFRSSTQ | VHVTVIGGNL | HSPAFLQNEY | EVELAENAPL | HTLVMEVKTT | 2520 |
| | DGDSGIYGEV | TYHIVNDFAK | DRFYINERGG | IFTEKLDRE | TPAEKVISVR | IMAKDAGGKV | 2580 |
| | AFCTVNVILT | DNDNAPQFR | ATKYEVNIGS | SAAKGTSVVK | SASDADEGSN | ADITYALEAD | 2640 |
| 15 | SSSVKENLSI | NKLSGVITTK | ESLIGLENEF | FTFFVRAVDN | GSPSKRSVVL | VYVKILPEPM | 2700 |
| | QLPKPSEFFY | TFTVSEDVPV | GTEIDLIRAE | HSQTVLYSLV | KGMTPESMED | ESFVIDRQSG | 2760 |
| | RLKLEKSLDH | ETTKWYQFSI | LARCTQDDRE | MVASVDVSIQ | VKDANDNSPV | FESSPYEAFI | 2820 |
| | VENLPGGSRV | IQIRASDADS | GTNGQVMYSL | DQSQSVIEIE | SFAINMETGW | ITTLKELDRE | 2880 |
| | KRDNYQIKVD | ISLHGEKIQ | SSTAIVDVT | TDVNDSPPRF | TABIKYKGTVS | EDDPQGGVIA | 2940 |
| 20 | ILSTTDADSE | RINQVITYFI | TGDDPLGQFA | VTIQNEWKV | VYKPKLDREK | RDNVLLTITA | 3000 |
| | TGDTFSSKAI | VEVKVLAND | NSPVCEKTLV | SDTIPEDVLP | GKLMQIEAT | DADIRSNABI | 3060 |
| | TYTLGSGGAE | KFKINPDIGE | LKTSTPLDRE | EQAVYELLVR | ATDGGGRFCQ | ASIVVILEDV | 3120 |
| | NNDNAPEFAD | PYAITVFENT | EPGTLTTRVQ | ATDADAGLNR | KILYSLIDSA | DGQFSINELS | 3180 |
| | GIQLEKRLVD | RELQAVYTL | LKAVDQGLPR | RLTATGTIVV | SVLDINDNEF | VFEYREYGAT | 3240 |
| 25 | VSEDILVGE | VLOVYASRD | IEANAEITYS | IISGNEHGRF | SIDSKTGAVF | IENLDYESS | 3300 |
| | HEYILTVEAT | DGGTPELSDV | ATVNVNVTDI | NNTFVFSQD | TYTTVISEDA | VLEQSVITVM | 3360 |
| | ADDADGPNIS | HIHYSIDGN | QSSFTIDPVP | RGEVKVTKLL | DRETISGYTL | TVQASDNGSP | 3420 |
| | PRVNTTTVNI | DVSDVNDMAP | VFSRGYNSVI | IQENKPVGVS | VQLVVTDED | SSHNGPPFF | 3480 |
| | TIVTGNDIFA | FEVNFQGVLL | TSSAIKRKEK | DHYLLQVKVA | DNGKPOLSSL | TYIDIRVIEE | 3540 |
| 30 | SIYPPAILPL | EIFTSSGEE | YSGGVIGKIH | ATDQDVYDIL | TYSLDFQMDN | LFSVSSGSGK | 3600 |
| | LIAHKKLDIG | QYLLNVSVTD | GKFTTVADIT | VHIRQVTQSM | LNBTIAIREA | NLTPSEFVGD | 3660 |
| | YWRNFQRLR | NILGVRNDI | QIVSLQSSFP | HPHLDVLLRV | EKFGSAQIST | KQLHKKINSS | 3720 |
| | VTDISEIIGV | RILNVFQKLC | AGLDCPWKFC | DEKVSVDSEV | MSTHSTARLS | FVTPRHHRRA | 3780 |
| 35 | VCLCKEGRCP | PVHEGCEDDP | CPEGSECYSD | PWEEKHTCVC | PSGFEQCQCP | SSMTLTGNS | 3840 |
| | YVKYRLTENE | NKLEMKLXMR | LRTYSTHAVV | MYARGTDYSI | LEIHGRIQY | KFDGSGGPGI | 3900 |
| | VSVQSIQVND | QGWHAVALAV | NGNYARLVLD | QVHTASGTAP | GTLCNTLNLM | VVFFQGHIRQ | 3960 |
| | QGTRHGRSRL | VNGFRGCMQ | SIYLNQQLP | LNSKPRSYAH | IEESVDVSPG | CPLTATEDCA | 4020 |
| | SNFQCNGGVC | NPSAGGYYC | KCSALYIGTH | CEISVNPCCS | NPCLYGGTCV | VDNNGFVCCQ | 4080 |
| 40 | RGLYTGQRCV | LSPYCKDEPC | KNGGTCFDSL | DGAVCCQDSG | FRGERQSDI | DECSGNFLH | 4140 |
| | GALCENTHGS | YHCNCSHEVR | GRHCEDAAPN | QYVSTFWNIG | LAEIGIGIVF | VAGIFLLVVV | 4200 |
| | FVLCRKMIKR | KKKHQASPKD | KHLGPATAFL | QRPFYDSKLN | KNIYSDIPPQ | VPVRPISTTP | 4260 |
| | SIFSDSRNML | PRNSFRGSAI | PERPEFSTFN | PEVSVHGRKA | VAVCSVAFNL | PPFPFSEPS | 4320 |
| | DDSDSIQKFW | DDYDTKVVVD | LDPCLSKKFL | EEKPSQPYSA | RESLSEVQSL | SSQFSESDD | 4380 |
| 45 | NGYHWDTSW | MSFVPLEDQ | SEPNVEVIDE | QTPLYSADPN | AIIMDYTPGG | YDIESDFPPP | 4440 |
| | PEDFPAADEL | PFLPPEFENQ | FESIHPPTIM | PAAGSLGSSS | RNRQRFNLNQ | YLPNFPILDM | 4500 |
| | SEPQTKGTGE | NSTCREPHAP | YFPQYQRHFE | APAVESMFM | VYASTASCSD | VSACCEVESE | 4560 |
| | VMSDYESGD | DGHFEEVITP | PLDSQHTFV | | | | 4590 |

Seq ID NO: C376 Protein Sequence
Protein Accession #: NP_055035.1

| | | | | | | | |
|----|------------|------------|-------------|------------|------------|------------|-----|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 55 | MCYKGCARCI | GHSVLGLALL | CLAA NILLYF | FNGETKYASE | NHLSRFVWFF | SGIVGGGLIM | 60 |
| | LLPAFVFIGL | EQDDCCGCGG | HENCGKRCAM | LSSVLAALIG | IAGSGYCVIV | AALGLAEGFL | 120 |
| | CLDSLQGWNY | TPASTEGQYL | LDTSWSECT | EPKHIVEWNV | SLPSIILALG | GIEFILCLIQ | 180 |
| | VINGVLGGIC | GFCCSEQQQY | DC | | | | 202 |

Seq ID NO: C377 Protein Sequence
Protein Accession #: NP_003750.1

| | | | | | | | |
|----|-------------|-------------|------------|------------|------------|-------------|------|
| | 1 | 11 | 21 | 31 | 41 | 51 | |
| 65 | MSTENVEGKP | SNLGERGRAR | ESTFLKVVQF | MFNHSIFTSA | VSPAARIRIF | ILGEEDDSPA | 60 |
| | PPQLETELDE | LLAVDQGEME | WKETARWIKF | EEKVBQGGER | WSKEHVATLS | LHSLFELRTC | 120 |
| | MEKGSIMILDR | EASSLPQLVE | MIVDQIETG | LLKPELKDKV | TYTLIRKERR | QTKKSNLRSL | 180 |
| | ADIGKTVSSA | SRMFTNPDNG | SPAMTERNLT | SSSLNDISDK | PEKDQLKNKF | MKKLPDARA | 240 |
| | SENVLVGEVDF | LDTPPIAFVR | LQQAVALGAL | TEVPVPTREF | FILGPGKGA | KSYHETGRAI | 300 |
| 70 | ATLMSDEVFH | DIAYKADREH | DLTAGIDEFL | DEVIVLPFGE | WDPAIRIEPP | KSLFSSDKRK | 360 |
| | NMYSGGENVQ | MNGDTPEIDGG | HGGGEGDCR | ELQRTGRFCG | GLIKDIKRKA | PPFASDFYDA | 420 |
| | LNIALSAIL | FIYLATVTNA | ITPGGLGDA | TDMQGVLES | FLGTAVSGAI | PCLFAGQPLT | 480 |
| | ILSBTGFWLV | FERLLFNFPSK | DNNFDYLEFR | LWIGLWSAPL | CLILVATDAS | FLVQYTFRT | 540 |
| | REGFSLSLISF | IFYDYAFKFM | IKLADYYPIN | SNFKVGNYTL | PSCTCVPPDP | ANISISNDTT | 600 |
| 75 | LAPFYLPTMS | FLQVLYHNTT | DWAFLSKKEC | SKYGGNLVGN | NCNFVPDITL | MSFILHLGTY | 660 |
| | TSSMALKKFK | TSYPFPTTAR | KLISDPAILL | SILIFCVIDA | LVGVDTPKLI | VPSEFKPTSP | 720 |
| | NRGFEVPPFG | ENFWVWCLAA | AIPALLVTIL | IPMDQQTAV | IVNRKEHNLK | KGAGYHLDLF | 780 |
| | WVAIIMVICS | LMALFWIVAA | TVISIAHIDS | LKMETETSAP | GEQPKFLGVR | EQRTVTGLVF | 840 |
| | ILTGLSVFMA | ETLKFIMPVY | LYGVFLYMGV | ASLNGVQFMD | RLKLLIMPLK | EQPDFIYLRH | 900 |
| 80 | VPLKRVHLEF | FLQVLCIALL | WILKSTVAAI | IFPVMILALV | AVRKGMDYLF | EQHDLSPFLD | 960 |
| | VIPEKDKKKK | EDSKKKKKK | GSLSNDNDS | DCFYSEKVES | IKIPMDIMEQ | QPFLESSEKPS | 1020 |
| | DRERSPTFLE | RHTSC | | | | | 1035 |

Seq ID NO: C378 Protein Sequence
Protein Accession #: NP_000949.1

1 11 21 31 41 51
 5 MSTPQVNSSA SLSPDRLNSP VTIPAVMFIF GVVGNLVAIV VLCKSRKEQK ETIFYTLVCG 60
 LAVTDLLGTL LVSPVTIATY MKGQWPGGQP LCEYSTFILL FFSLSGLSII CAMSVERYLA 120
 INHAYFYSHY VDKRLAGLTL FAVYASNVLF CALPNMGLGS SRLQYPTDWC FIDWTINVT 180
 HAAYSIMYAG FSEFLILATV LCNVLVCGAL LRMHRQFMRR TSLGTEQHHA AAAASVASRG 240
 HPAASPALPR LSDFRRRRSF RRIAGASIQM VILLIATSLV VLICISPLVV RVFVNQLYQP 300
 10 SLEREVSXNP DLQATRIASV NPILDPIYI LLRKTVLAKA IEKIKCLFCR IGGSRRRERSG 360
 QRCSDSQTTS SAMAGHSRSF ISRELKEISS TSQTLLPDLS LPDLSENGLG GRNLLPGVPG 420
 MGLAQEDTTS LRTLRISETS DSSQQQDSSES VLLNDEAGGS GRAGPAPKGS SLQVTFPSET 480
 LNLSEKCI 488

Seq ID NO: C379 Protein Sequence
 Protein Accession #: NP_002650.1

1 11 21 31 41 51
 20 MGHPPLLLPLL LLLHTCVPAS WGLRCMQCKT NGDCRVEECA LGQDLCRTTI VRLWEEGSEL 60
 ELVEKSCITHS EKTNRKLSYR TGLKITSLTE VVCGLDLNCQ GNSGRAVITYS RSRYLECISC 120
 GSSDMSCERG RHQSLQCRSP EQQCLDVVTE WIQEGEGGRP KDDRHLRGCG YLPGCPGSG 180
 PHNNTTFHFL KCNTTKCNE GPILLEENLP QNGRQCYSCK GNSHGCSSSE ETLIDCRGP 240
 MNQCLVATGT HEPKNQSYMV RGCATASMCQ HAHLGDAFSM NHIDVSCCTK SGCNHPDLV 300
 25 QYRGAAPQP GPABLSTIT LMTARLWGG TLLWT 335

Seq ID NO: C380 Protein Sequence
 Protein Accession #: BAB55406.1

1 11 21 31 41 51
 30 MDEFSGQVDP LASVILPPL LNLSPEDSV LVERRAQFTTF NKTGLFQDVQ PQRKTLVSYV 60
 MACSIGNITI QMLKDPVQIK IKHTRTQEVH HPICAFWDLN KNKSFQGWNT SGCVAHRDSD 120
 ASHTVCLCNH PTFEGVLMDL PRSASQLDAR NTKVLTFISY ICGGISALFS AATLLTYVAF 180
 35 EKLRRDYPSPK ILMMLSTALL FIMLLFLDDG WITSFNVDLG CIAVAVLHIF PLLATFTWFG 240
 LEAHHMYIAL VKVFNTYIRR YILKFCIIGW GLPALVSVV LASRNNNEVY GKESYVGKEKG 300
 DEFQNIQDPV IFYVTCAGYF GVMFFLNIAH FIVVMVQICG RRGKRNRNLT RESVLNLR 360
 VVSLTFLLGM TWGFAPFAMG PLNIPFMYLF SIFNSLQGLF IFIFHCAMKE NVQKQWRHL 420
 40 CCGRFRLADN SDWSKATANI IKKSSDNLGK SLSSSSIGSN STYLTSKSKS SSTTYFKENS 480
 HTDNVSYEHS FNKGSGLRQC FEGQVLVKTG PC 512

Seq ID NO: C381 Protein Sequence
 Protein Accession #: NP_000565.1

1 11 21 31 41 51
 45 MTVARPSVPA ALPILGELPR LLLLVLLCLP AVWGDCGLPP DVFNAQPALE GRTSFFEDTV 60
 ITYKCESFV KIPGEDSVI CLKGSQWSDI EEPNRSCEV PTRLNSASLK QPYITQNYFP 120
 VGTVVYETCR PGVRRPESLS PKLTCLQNLK WSTAVEFCKK KSCPNGEIR NGQIDVPGGI 180
 50 LFGATISFSC NTGYKLFGST SSFCLISGSS VQWSDPLEEC REIYCPAPPQ IDNGIIQGER 240
 DHYGYRQSVT YACNEGPTMI GEHSIYCTVN NDEGENSGFP PRCRGKSLTS KVPPTVQKPT 300
 TVNVPTTSS PTSQKTTIKT TTFNAQATRS TPVSRITTKHF HETTPNKGSG TTSGTTRLLS 360
 GHTCFTTATGL LGTLVTMGLL T 381

Seq ID NO: C382 Protein Sequence
 Protein Accession #: Eos sequence

1 11 21 31 41 51
 60 MDTSLRGVLL SLFVLLQLAT GGSSPRSGVL LRGCPTHCHC EPDGRMLLRV DCSDLGLSEL 60
 PSNLVFTSY IDLSMNNISQ LLPNPLPSLR FLEELRLAGN ALTYIPKQAF TGLYSLKVL 120
 LQNNQLREVP TEALQNLRS QSLRLDANHI SYVPPSCFSG LHSRLHMLD DNALTEIPVQ 180
 AFRLSALQA MTLALNKIIE IPDYAFGNLS SLVVLHLHNN RTHSLGKKCF DGLHSLTLD 240
 65 LNNYNLDEFP TAIRTLNLK ELGFYDNPIQ FVGRSAFQHL PELRTLTLLG ASQITEFPDL 300
 TGTANLESLT LTGAQISSLP QTVCNQLPNL QVLDLSYNLL EDLPSFSVCQ KLQKIDLRHN 360
 RIYEIKVDTF QQLSLRLSLN LANNKIAIIE PNAFTLPSL IKLDLSNLL SSEFTTGLHG 420
 LTHLKLTGMH ALQSLISSEH FPELVIEHP YAYQCCAPGV CSNAYKISNQ WNKGDNSMD 480
 DLHKKDAGMF QAQDERDLEL FLDDFEEDLK ALHSVQCSFS PGPFKPCERL LDGWLIRIGV 540
 WTIKAVLALT NALVTSVFR SPLYISFIKL LIGVIAAVNM LTGVSSAVLA GVDAPTFGSF 600
 70 ARHGAWWENG VGCHVIGFLS IFASESSVFL LTLAALERG SVKYSAKFET KAPFSSLVKI 660
 ILLCALLALT MAHVPLGGSS KYGASPLCLP LPFGHPSIMG YNVALILNS LCFIMMTIAY 720
 TKLYCNLDKG DLEMINDCSH VKHIALLLFT NCILNCPVAF LSPSSLINLT FISPEVIKFI 780
 LLVVVPLPAC LNPILLYLFP PHFKEDLVSL RKQTYVWTRS KHPSLMSINS DDVEKQSCDS 840
 TQALVTFISS SITYDLPESS VPSPAYFVTE SCHLSSVAZF PCL 883

Seq ID NO: C383 Protein Sequence
 Protein Accession #: NP_003658.1

1 11 21 31 41 51
 80 MDTSLRGVLL SLFVLLQLAT GGSSPRSGVL LRGCPTHCHC EPDGRMLLRV DCSDLGLSEL 60
 PSNLVFTSY IDLSMNNISQ LLPNPLPSLR FLEELRLAGN ALTYIPKQAF TGLYSLKVL 120
 LQNNQLREVP TEALQNLRS QSLRLDANHI SYVPPSCFSG LHSRLHMLD DNALTEIPVQ 180
 AFRLSALQA MTLALNKIIE IPDYAFGNLS SLVVLHLHNN RTHSLGKKCF DGLHSLTLD 240
 LNNYNLDEFP TAIRTLNLK ELGFHNNIR SIPEKAFVGN PELITIHFYD NPLQFVGRSA 300

FOHLPELRTL TLNGASQITE FPDLTGTIANL ESLTLTGAQI SSLPQTVCNQ LPNLQVLDLS 360
 YNLLDLPSF SVCQRLQKID LRNEIYEIK VDTFQQLLSL RSLNLAWNKI AIHPNAPST 420
 LPSLKLKDL SMLSSFPIT GLHGLTHLKL TGNEALQSLI SSENFPCLKV IEMPAYQCC 480
 AFGVCENAYK ISNQHNKGDN SMDLHKKD AGMFQAQDER DLEDPLDDE EDLXALHSVQ 540
 CSFSPGPFKP CEHLIDGWL I RIGVWTIAVL ALTCLNLTVS TVFRSPLVIS PIXLLIGVIA 600
 AVNMLTGVS AVLAGVDAFT PFSFARHGAW WENGVGCHVI GFLSIPASES SVFLTLAAL 660
 ERGFSVKYSA KPETKAPFSS LKVIILLCAL LALTMAAVPL LGSSKYGASP LCLPLPFGE 720
 STMGMVALI DLNLSLCLMM TIAYTKLYCN LDKGDLNIW DCSMVKHIAL LLFTNCLLNC 780
 PVAFLSFSSL INLTIFISPEV IKFILLVVVP LPACLNPLLY ILFNPHFKED LVSLRKQTYV 840
 WTRSKHPSLM SINSDDVEKQ SCDSTQALVT FTSSSITYDL PPSVSPSPAY PVTESCHLSS 900
 VAFVPC 907

Seq ID NO: C384 Protein Sequence
 Protein Accession #: NP_003497.1

15
 1 11 21 31 41 51
 MEMFTLLTC IFLEPLLRGHS LETCEPITVP RCMOMAYNMT FFPNLMGHVD QSIAAVEMEH 60
 FLPLANLECS FNIETFLCA FVPTCIEQIH VVPPCRKLCE KVSYDCKKLI DTFGIRWPEE 120
 20 LECRLQYCD STVPVTFDPH TEFGLFQKKT EQVORDIGFN CPHRLKTSQG QGYKFLGIDQ 180
 CAPPCPNMYP KSDELEFAKS FIGTVSIFCL CATLFTFLTF LIDVRRFRYP ERPIIYSVC 240
 YSIVSLMYFI GFLLDGSTAC NKADKLELG DTVVLGSKNK ACTVLFMLLY FFMAGTVWW 300
 VILITWFLA AGKKWSCRAI BQKAVWPHAV ANGTGPGFLTV MLLALNKVEG DNISGVCVFG 360
 25 LYDLASRYF VLLPLCLCVF VGLSLLLAGI ISLNHVRQVI QHGRNQKEL KKFMRIGVF 420
 SGLYLPLVLT LLGCYVVEQV NRITWEITWV SDHCRQYHIP CPYQAKAKAR PELALEMIKY 480
 LMLTIVGISA VFWVGSKKTC TENAGFFKRN EKRDPISER RVIQESCEFF LKENSKVKKK 540
 KKHYPSSRK LKVISKSMGT STGATANHGT SAVAITSHDY LGQETLTETQ TSPETSMREV 600
 KADGASTPRL RQDQCEPAS PAASISRLSG EQVDGKGQAG SVSESARSEG RISPKSDITD 660
 30 TGLAQSNLQ VPSSSEFSSL KOSTELLVHP VSGVRKEGG GCHSDT 706

Seq ID NO: C385 Protein Sequence
 Protein Accession #: NP_000573

35 1 11 21 31 41 51
 MRAIVICECL LGITCAIFVK QADSGSSEK QLYNKYPDAV ATWLNPDPEQ KQNLAPQTL 60
 PSKNSHSHH MDMDDDDDD DHDVDSQSDID SMDSDDDVD DSDHQSDESH HSDSDDELVT 120
 DFFDLDPAE VFTEVTVTD TYDGRGDSVV YGLRSKSKKF RRPDIQYFPA TDEDITSEME 180
 40 SEELMGAYKA IPVAQDLNAP SDWDSRGKDS YETSQLDQGS AETHSHKQSR LYRKANDES 240
 NEHSDVIDSQ ELKVSREFH SHEFHSRDM LVVDPKSKER DEHLKFRISH ELDBASSEVN 300

Seq ID NO: C386 Protein Sequence
 Protein Accession #: NP_002812

45 1 11 21 31 41 51
 MGAARGSPAR FRRLLPLSVL LPLPLGQTQ AIVFIKQPS S QDALQRRAL LRCEVEAPGP 60
 VEVYNLLDGA EVQDTEREPA QGSSLSFAAV DRLQDSGTFQ CVARDDVTGE BARSANASFN 120
 50 LKWEAGPVV LKHPASABAI QPQTQVTLRC HEDGEPRTY QWFRDGTLS DGQSNETVSS 180
 KERNLTLRPA GPEHSGLYSC CAHSAPGQAC SQQNFTLSIA DESPARVVLIA PQDVVVARYE 240
 EAMFHQFSA QPPFSIQWLF EDETPIITNS REPFLRRATV FANGSILLTQ VPRNAGIYR 300
 CIGQQRGFP IILEATLHLA BIEDMPLEFP KVFTAGSERR VCLPCKGLP EPSVWWEHAG 360
 VRLPTEGRVY QKQHLVLNAP IASDAGVYT CHAANLAGQR RQDVNITVAT VPSWLKKEFD 420
 55 SQLEBSKPGY LDCLTQATPK ETVVYRNQM LISEDSRFV FNGTILRINS VEVDGTWYR 480
 CMSTPAGSI BAQARVQVLE KIKFTPPFPQ QQCMEDKEA TVPCSATGRE KPTIKWEAD 540
 GSSLPEWVD NAGTLHFARV TRDDAGNYTC IASNGPQQI RAHVQLTVAV FITEKVEPER 600
 TTVYQGTAL LCCEAQGDPK PLIQWKGDR ILDPTKLGP R MHIFQNGSLV IHDVAPEDSG 660
 RYTCIAGNSC NIKHTSAPLY VVDKPVPEES EGPGSPFFYK MIQTIGLSVG AAVAYIIAVL 720
 60 GLMFYCKRC KAKRLQKQE GKEPEMECLN GGPLQNGQPS AEIQBEVALT SLGSGPATIN 780
 KRESTEDKH FFRSLOPIT TLGKSEFGEV FIKAQGLEB GVAETLVLVK SLQTKDRQQQ 840
 LDPRRELEMF GKLNHANVVR LLGLCREAP HYMVLEYVDL GULXQFLRIS KSKDEKLKSO 900
 PLSTQKVAL CTQVALGMEH LEMNRFVHKD LAARNCLVSA QRQVKVSLG LSKDVYNSEY 960
 YHFRQAWPL RMWSPEALE GDFSTKSDVN AFGVLMKEVF THGEMPHGGQ ADDEVLDLQ 1020
 65 AGKARLPQPE GCPSKLYRLM QRCHALSFKD RPSFSEIASA LGDSTVDSKP 1070

Seq ID NO: C387 Protein Sequence
 Protein Accession #: NP_002300.1

70 1 11 21 31 41 51
 MKVLAAGVVP LLLVLHWKHG AGSPLPITPV NATCAIRHPC HNMLAQIRIS QLAQLNGSAN 60
 ALFILYTTAQ GEFPPNLDK LCGPNVTDFP PFHANGTEKA KLVELYRIVV YLGTBLGNIT 120
 RDQKILNPSA LSLHSKLNAT ADILRGLLSN VLCRLCSKYH VGRVDVTYGP DTSKDVFPK 180
 75 KKLGCQLLGK YKQIIVLAQ AF 202

Seq ID NO: C388 Protein Sequence
 Protein Accession #: XP_097508

80 1 11 21 31 41 51
 MGRPRLTVC HVSIISARD LEMNNTLELQ PGLFHLRLFL BELRLSGNHL SHIPQQAQSG 60
 LYSKILMLQ NNQLGGTPAE ALWELPSLQS LRLDANLISL VPEKSPGLS SLRHLWLDN 120
 ALTEIPVRAI NNLPALQAMT LALNRIHIP DYAFQNLISL VVLHLNRRRI QHGTSTFEG 180
 LHNLETLN KAKLQEFVVA IRLGLRLQL GFBNNNIKAI PEKAFMGNPL LQTIHYDNP 240

5 IQFVGRSAFO YLPKHLTLSL NGAMDIQEFPL DLKGTTSLEI LTLTRAGIRL LPSGMCQQLP 300
 RLRVLELSHN QIRELPSELR CQKLEIEIGLO HNRINWIGAD TFSQLSSLOA LSLSWNAIRS 360
 IHPAPFTSLH SLVKLDLTDN QITTLPLAGL GGLMHLKLG NLALSQAQSK DSFPKLRILE 420
 VPYAYQCCPY GMCAFFKAS QMEAREDLHL DDESSKRPL GLLARQAENH YDQDLDELQL 480
 EMEDSKPHPS VQCSPTFGPF KPCEYLFESW GIRLAVWAIV LLEVLCKGLV LITVFAGGPV 540
 PLFPVKFVVG AIAGANTLTG ISCGLLASVD ALTFQGFSEY GARWETSLGC RATGFPLAVLG 600
 SEASVLLLTLL AAVQCSVSVS CVRAYGKSPS LGSVRAGVLG CLALAGLAAA LPLASVGEYG 660
 ASPLCLPYAP PGQPPAALGF TVALVMMNSF CFLVAVAGYI KLYCDLPRGD PEAVWDCAMV 720
 10 RHVAMLIYAD GLLYCPVAPL SFASMLGLFP VTPEAVKSVL LVVLPPLPACL NPLLYLLFNP 780
 HFRDDLRLRL PRAGDSGFLA YAAAGELEKS SCDSTQALVA FSDVDLILEA SEAGRPPOLE 840
 TYGFPFVTLI SCQPGAPRL EGSCHVEPEG NEFGNPQPSM DGEILLRABG STPAGGGLSG 900
 GGGFPQPSGLA FASHV 915

Seq ID NO: C389 Protein Sequence
 Protein Accession #: NP_570901

15
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 1 11 21 31 41 51
 MASIVLSLEIG LLLAVLVVTA TASPPAGLLS LITSQOGALD QBALGGLINT LADRVHCING 60
 PCQCLSVED ALGGEPEGS GLFPGPVLEA RYVARLSAAA VLYLENFEGT CEDTRAGLWA 120
 SHADHLALL ESPKALTGGL SWLLQRMQAR AAGQTPKTAC VDIPQLLEE VGAGAPGSAG 180
 QVLAALDLHV RSGSCFHALP SPQYFVDFVF QQHSSEVMT LAELSALMQR LGVGRASHD 240
 HSERHRCASS RDPVPLISS NSSSVWDTVC LSARDVMAAY GLSEQAGVTP EAWAQLSPAL 300
 LQQQLSGACT SQSPVPVDDQ LQGSERYLYG SLATLLICLC AVFGLLLTLC TGRGVVAHYI 360
 LQTFPLSLAVG ALTGDAVLEL TPVKVLGLTH SEEGLSPPQT WRLLAMLAGL YAFFLFENLF 420
 NLLLEDFPED LEDGPCGHSS HSEGGHSHGV SLQAPSELR QPKPPREGSR ADLVAERSPE 480
 LLNPEPRRLS PELRLLLPYMI TLGDAVHNFA DGLAVGAAPA SSWKTGLATS LAVFCHLPH 540
 ELGDPAALLH AGLSVRQALL LNLASALTAF AGLYVALAVG VSESEANIL AVATGLFLYV 600
 ALCDMLPAML KVRDRPFWLL FLHNVGLLG GWTVILLLSL YEDDITF 648

Seq ID NO: C390 Protein Sequence
 Protein Accession #: NP_061844

35
 40
 1 11 21 31 41 51
 MANASEPGGS GGGEAAALGL KLATLSLLLC VSLAGEVLFA LLIVRERSLE RAPPYLLLDL 60
 CLADGLEALA CLPAVMAAR RAAAAGAPP GAGCKLLAF LAALCFCHAA PLLLGVGTR 120
 YLAIAHREYF AERLAGWPCA AMLVCAAWAL ALAAAFPPVL DGGGDEEDAP CALEQRPDGA 180
 PGALGFLLL AVVVGATHLV YLRLLPFTHD RRMRFPARLV PAVSEDWTFH GFGATGQAAA 240
 NWTAGFGROP TPPALVGRIP AGPGRGARRL LVLEEFKTEK ELCTMFYAVT LFLLLWGPY 300
 VVASYLKVLV RFGAVPOAYL TASVWLTFQA AGINPVVCFE FNRELRDCFR AQFPCCQSPR 360
 TQATHPCDL KGIGL 375

Seq ID NO: C391 Protein Sequence
 Protein Accession #: NP_005622

45
 50
 55
 60
 1 11 21 31 41 51
 MAAARFARGP ELPLGLLLLL LLLGDPGRGA ASSGNATGPG FRGAGGSARR SAAVTGPPFP 60
 LSHCGRAAPC EPLKYNVCLG SVLFYGATST LLAGDSDSQE EAHGKLVWS GLENAAPRCWA 120
 VIQPLLCAVY MPKCCNDRVE LPSRTLQAT RGPCTAVERE RGWPDFLRCT PDRFFEGCTN 180
 EVQNIKFNSS GQCEVPLVWT DNPKSWYEDV EGGGIQCNPE LETEAERQDM HSYIAARGAV 240
 TGLCTLETLA TFVADWRNEN RYPAVILFTV NACFFVGSIG WLAQFMDGAR REIVCRADGT 300
 MRLGEPTSNE TLSCYIIFVI VYXALMAGVV WYVVLTYANH TSPKALGTTY QPLSGKTSYF 360
 HLLTNELPFV LTVAILAVAG VDGDSVSGIC FVGKMYRYR AGFVLAPIGL VLVVGGYFLI 420
 RGVMTLFSIK SNHPLLSSEK AASKINETML RLGIFFGLAF GFVLITFSCH FYDFENQAEW 480
 ERSFRDYVLC QANVTIGLET KQIPDCBIK NRPSLLVEKI NLFAMFGTGI AMSTWVWTKA 540
 TLLINERTWC RLTOGSDDEP KRIKSKMLA KAFSKRELL QNPGQELSPS MHTVSHDGPV 600
 AGLAFDLNEP SADVSSAWAQ HVTKMVARRG AILPQDISVT PVATVPPEPE QANLWLVBAE 660
 ISPELQKRLG RKCKRKREK SVCEPLAPPE LHPPAPAPST IFRLEQLPRQ KCLVAAGAWG 720
 AGDSRCQGAW TLVSNPFCEP SPFPQDPFLP SAPAPVANAH GRRQLGLPIH SKTNLMDETE 780
 MDADSDP 788

Seq ID NO: C392 Protein Sequence
 Protein Accession #: BAC04382

65
 70
 75
 80
 1 11 21 31 41 51
 MGARSARGA LLLALLCWD PRLSQAGRK RSGEVLDSFP SAPASPLPYF LQEPQDAYIV 60
 KNEFVELRCR AFPATQIYFK CNGSWVSQND BVTQBGLEDA TLGARGGLKV REVQIEVERQ 120
 QVSEFLGLSD YWCQCVAWSS AGTTKSRRAY VRIAYLKRF DQEPLEKEVP LDHEVLLQCR 180
 PPGSVPAEV SWLKNEVDID PTQDTNFLT IDENLIIRQA RLSDTANYTC VAKNIVAKRR 240
 STTATVIVYV NGCHSSWAEW SPCSNRCGRG WQRTTRICTN PAPINGGAPC EQQAPQKTAC 300
 TTICPDVDAW TSWKWSACS TECARWSRE CMAPPQNGG RDCSGTLLDS KNCIDGLCMQ 360
 NKRTLSDFNS HLLASGDAA LYAGLVVAIF VVVAIMAVG VVVYRNRCD FDTDTITSSA 420
 ALTGGEFEPV FKTRPSNPQ LLEPSVFPDL TASAGIYRGP VTALQDSTDK IFMTNSPLLD 480
 PLPSLKVEVY SSSTTSGSGG LADGADLLGV LPPGYPSDF ARDTFLHLR SASLGSQQLL 540
 GLPRDPGSSV SGTFGCLGGR LSIPGTGVEL LVPMGALPQG KFYEMYLLIN KASTLPLSE 600
 GTQTVLSPSV TCSTPTGLLC RPVILIMPBC AEVSARDWIF QLKTAHQGH WKEVVTLDSE 660
 TMTPCVCOQ EPRACHILLD QLTGTVFTGE SYERSAVKRL QLAVPAPALC TSLEYSLRVY 720
 CLEDTPVALK FKTVREKPL MFKDSYENLR LSLLEDLEHAH WRSKILLAKYQ 780
 EIPFYHWSG SQKALHCTFT LERHSLASTE LTCKICVRQV EGGQITFQLE TFLASTPAGS 840
 LDTLCSAPGS TVTITGFPYA FKIPLSIRQK ICNSLDAPNS RGNDRMLAC KLSMDRYINY 900
 FATKASPTGV ILDLWEALQQ DDGDLNLSLAS ALRSMGKSEM LVAVATDGDG 950

Seq ID NO: C393 Protein Sequence
Protein Accession #: NP_004616

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5      1      11      21      31      41      51
      |      |      |      |      |      |
MNRKARRCLG HLFSLGVMVY LRIGGFSSVV ALGASII CNK IPGLAPRQRA ICQSRPDALH 60
VIGEGSQMGL DECQGPFRNG RWNCSALGER TVFGKELKVG SREAAFTYAI IAAGVAHAIT 120
AACTQGNLSD CGCDKEKQGG YHRDEGWKNG GCSADIRYGI GFAKVTVFAR EIKQARTLM 180
10    NLHNNAGARK ILEENMKLEB KCHGVSGSCT TKTCTWTLPO FRELGVVLKD KYNEAVHVEP 240
VRASRNKRPQ FLKIKKPLSY RKPMDTDLVY IEKSPNYCEE DPTVGSVGTO GRACNKTAPO 300
ASGCDLNCQG RGYNTHQYAR VWQCNCCKPHW CCYVKCNTCS ERTEMYTCK 349

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Seq ID NO: C394 Protein Sequence
Protein Accession #: NP_003777

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15      1      11      21      31      41      51
      |      |      |      |      |      |
MDALCGSGEL GSKFWSNLS VHTENPDLP CFQNSLLAWV PCIYLVVALP CYLLYLRLHHC 60
20    RGYIILSHLS KLMVLGVLL WCVSWADLFY SPHGLVHGRA PAEVFVTPPL VVGVTMLLAT 120
      LLIQYERLQG VQSSGVLIIF WFLCVVCAIV PFRSKILLAK ABGEISDPPR PTFYIHFAL 180
      VLSALILACF REKPPFFSAK NVDPMFYPET SAGFLSLRFP NWFTKMAIYG YRHPLEEKDL 240
      WSLKEEDRSQ MVVQQLLEAW RKQEKQTARE KASAAPGKWA SGEDEVLLGA RPRPRKPSFL 300
      KALLATPGSS FLISACFKLI QDLSEFINPQ LLSILIRFIS NPMAPSWWGF LVAGLMFLCS 360
25    MMQSLILQHY YHIFVTGVK FRTGIMGVYI KALVITNSV KRASVGETV NLMVSVAQRF 420
      MDLAPFLNLL WSAPLQIILA IYFLWQNLGP SVLAGVAFMV LLIPMGAVA VKMRAQVVKQ 480
      MKLKDRIK MSELINGIKV LKGYAWEPSP LKQVEGIRQG ELQLLRTAAY LHTTTFTWM 540
      CSPFLVTLIT LWVYVVDEN NVLDAAEKAFV SVSLFNILRL PLAMLPQLIS NLTAQASVLK 600
      RIQQLSQEE LDPQSVERKT ISPGVAITIH SGTFTNAQDL PPTLHSLDIQ VPKGALVAVV 660
30    GFVQCGKSSL VSALLGEMEK LEGKVHMKGS VAYVFQQAWI QNCTLQENVL FSKALNPKRY 720
      QDTLEACALL ADLEMPPGGD QTEIGEGGIN LSGGQRQEVH LARAVYSDAD IFLLDDPLSA 780
      VDSHVAKHIF DRVIGPEGVL AGKTRVLVTH GISPLPQTFD ITVLADGQVS EMGPTPALLO 840
      RNSGFANFLC NYAPDEKQGH LEDSWTALRG AEDKEALLIE DTLNHTDLT DNDPVTYVVO 900
      KQFMRLSAL SSDGEGQGRF VPRRLGPSE KVQVTEAKAD GALTQEEKAA IGTVELSVFW 960
35    DYAKAVGLCT TLAICLLYVG QSAALIGANV NLSANTNDAM ADSRQNTBL RLGVYALGI 1020
      LQGFVLMIAA MAMAAGGIGA ARVLEQALLH NKIRSPQSFF DTPSGRILN CESKDIYVVD 1080
      EVLAPVILML LNSFFNAIST LVVIMASTFL FTVVILPLAV LYTIVQRFYA ATSRQLKRLS 1140
      SVSRPIYSH FSETVTGASV IRAYNRSDFF EIIISDTKVA NQSCSYFYII SNRWLSIGVE 1200
      FVGNCVLFA ALFVIGRGS LNPGLVGLSV SYSIQVTPL NWMIRMMSDL ESNTVAVERV 1260
40    KEYSKTETEA PWVVRGSRPP EGWPPRGEVR FRNYSVRYRP GLDLVLRLDS LEHVGGGKVG 1320
      IVGRTGAGKS SMTLCFLRIL EAAKGEIRID GLNVADIGLH DLRSQTLIIP QDPIFSQTL 1380
      RMNLDPFGSY SERDIWALE LSHLHTFVSS QPAGLDQCS EGGENLSVGQ RQLVCLARAL 1440
      LRKSRILVLD BATAAIDLET DMLIQTIRT QEDTCTVLT ARLNTIMDY TRVLVLDKGV 1500
      VAFFDSPANL IARGIFYGM ARDAGLA 1527

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Seq ID NO: C395 Protein Sequence
Protein Accession #: NP_004617

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50      1      11      21      31      41      51
      |      |      |      |      |      |
MRARPQVCEA LFLALALQTG VCYGIKWLAL SKTPSALALN QTORCKQLEG LVSAQVQLCR 60
SNLELMETVV HAAREVMKAC RRAPADMRWN CSSTELAFNY LLDLERGTRE SAPVYALSAA 120
AISHAIAIAC TSEDLPQCSC GPVPGKPPGP QNRWGGCADN LSYGLLMGAK FSDAPMKVK 180
55    TGSQANKLWR LHSNEKGRQA LRASLEMKCK CHGVGGSCSI RTCKGLQEL QDVAADLKTR 240
      YLSATKVVRK PMGRKHLVP KDLDIRFVKD SELVYLQSSP DFCMKNEKVG SEGTQDRQCN 300
      KTSNGSDSCD LMCCGRGYNP YTDREVERCH CKYHWCCYVT CRRCERTVER YVCK 354

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Seq ID NO: C396 Protein Sequence
Protein Accession #: NP_114072

```

60      1      11      21      31      41      51
      |      |      |      |      |      |
MEWGVLLEVT SLLAALALLQ RSSGAAAASA KKLACQBITV PLCKSIGYNY TYMPNQFNHD 60
70    TQDEAGLEVH QFWPLVEIQ SPDLKFFLCB MYTPICLEDY KKPPLPCRSV CERAKAGCAP 120
      LMRQYGFAMP DMRCDRLPE QGNEDTLQMD YNRTDLTTAA PSPERLPPPT PPGQPPSGS 180
      GHGKPPGARP PHRGGRGGG GGDAAAPPAR GGGGGGKARP PGGGAAPCEP GCQCRAFMVS 240
      VSSRHPLYN RVKTQIANC ALPCHNPPFB QDERAFTVFW IGLNSVLCFV STPATVSTFL 300
      IDMERFKYPE RPIIFLSACY LFPVSVGLVR LVAGHEKVC SGGAPGAGGA GGAGGAAAGA 360
      GAAGAGAGGP GGRGEYEEGL AVEQEVRYET TGFALCTVVF LLVYFFGMAS SIWVILSLT 420
75    WFLAAGMKWG NEALAGYSQY FHAAWLVES VKSLAVLALS SVDGDPVAGI CYVGSQSLDN 480
      LRGEVLAPLV IYLFQITMFL LAGFVSLFRI RSVIXQDGP TKTHRLERLM IRLGLFTVLY 540
      TVPAVVVUAC LFYEQHNRPR WEATHNCPCL RDLQPDQARE PDYAVFMLEY FMCLVVGITS 600
      GVWVWSGKTL PSWRSCLTRC CWASKGAAGV GGAGATAAGG GGGPGGGGGG GPGGGGGPGG 660
      GGGSLYSQVS TGLTWRSGTA SSVSYPRQMP LSQV 694

```

Seq ID NO: C397 Protein Sequence
Protein Accession #: XP_050625

```

80      1      11      21      31      41      51
      |      |      |      |      |      |
MLQPGGSLLL LFLASHCCLG SARGLFLFQQ PDFSRYKRSNC KPIPANLQLC HGIRYQNMRL 60
ENLLGHETMK EVLEQAGAWI PINMKQCHFD TKRFLCSLFA FVCLDDDET IQPCHSLCVQ 120
VKDRCAPVMS APGFPWPDML ECDRFPQDND LCIFLASEDH LRPATREAPK VCEACKNND 180
DDNDIMETLC KNDPALKIKV KETTYINRDT KIILETKSKT IYKLVGYSER DLKRSVLNLK 240

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| | | | | | | | |
|----|---|-------------|------------|------------|------------|-------------|-----|
| | DSLQCTCEEM NDINAPYLVM GQKQGGELVI TSVKRWQKQKQ REFKRISRSI RKLQC | | | | | | 295 |
| | Seq ID NO: C398 Protein Sequence | | | | | | |
| | Protein Accession #: NP_001297.1 | | | | | | |
| 5 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | | |
| | MSMGLKITGT | ALAVLGWLG | IVCCALPMWR | VSAFIGSNII | TSQNIWEGW | MNCVVQSTGQ | 60 |
| 10 | MQCKVYDSDL | ALPQDLQAA | ALIVVAILLA | APGLLVALVG | AQCTNCVQDD | TAKAKITIVA | 120 |
| | GVLFLAALL | TLVPVWSAN | TIIRDYFNPV | VPEAQKREM3 | AGLYVGWAAA | ALQLLGGALL | 180 |
| | CCSCPPREKK | YTATKVYSA | PRSTGPGASL | GTGYDRKDYY | | | 220 |
| | Seq ID NO: C399 Protein Sequence | | | | | | |
| | Protein Accession #: NP_036581.1 | | | | | | |
| 15 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | | |
| | MEERKDITNQ | EELWKMCPRR | NLEEDDYLHK | DTGETSMLKR | FVLLHLHQTA | HADEFDCPSE | 60 |
| 20 | LQHTQELFPQ | WHLPIKAAI | IASLTFLYTL | LREVLHPLAT | SHQYFYKIP | ILVINKVLPM | 120 |
| | VSITLLALVY | LPGVIAATVQ | LHNGTKYKFP | PHWLDKMWLT | RKQFGLLSFF | FAVLHAIYSL | 180 |
| | SYPMERSYKY | KLLNWAYQQV | QQNKEDAWTE | HVVWRMBIYV | SLGIVGLAIL | ALLAVTSIPS | 240 |
| | VSDSLTWREF | HYIQSKLGIV | SLLLGTIHAL | IFAMNKNWID | KQFVWYTFPT | FMAIVFLPIV | 300 |
| | VLIFKSILFL | PCLRKILKI | RHGWDVTKI | NKTETCSQL | | | 339 |
| 25 | Seq ID NO: C400 Protein Sequence | | | | | | |
| | Protein Accession #: NP_001766.1 | | | | | | |
| 30 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | | |
| | MANCEFSPVS | GDKPCCRLSR | RAQLCLGVSI | LVLILVVVLA | VVVERWRQTV | SGPGTTXRF | 60 |
| | ETVLARCVKY | TEIHEPMRHV | DCQSVWDAPK | GAFISKHPCN | ITEEDYQPLM | KLGTQTVPCN | 120 |
| | KILLWSRIKD | LAKQFTQVQR | DMPTLEDTLL | GYLADDLTWC | GEFNTSKINY | QSCPDWRKDC | 180 |
| | SNPFVSVFWK | TVSRRFABAA | CDVVHVMLNG | SRSKIFDKNS | TFGSVVEVHL | QPEKVQTLER | 240 |
| 35 | WVHIGREDS | RDLCQDPTIK | ELESIISKRN | IQFSCKNIYR | PDKFLQCVMN | PEDSSCTSEI | 300 |
| | Seq ID NO: C401 Protein Sequence | | | | | | |
| | Protein Accession #: XP_120513.2 | | | | | | |
| 40 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | | |
| | MVSCFSGPL | RSINENVKFF | YALHAFMFRM | SSEAAMLGES | RTPKPRKHRA | TTRAKYFKRF | 60 |
| | FSEGESNSR | LVEELAVIHT | YSDDPAFTTS | PSSVQEREPG | VMQCAPRARF | GSRTPPAAAE | 120 |
| | ASSPHLGIGE | AACQSGARAA | APRAGARRCQ | FQRQAAAAA | TAQTHYLEPA | RTRADPAGER | 180 |
| 45 | RRPRSPAPG | GGSTCSEGA | PRRRMEEMQ | PAEEGSPVFK | IYKQSPYEV | LKTFPSEKPA | 240 |
| | LAKRYERPTL | VELPHGLRT | PAQPPASP | ASSSSSFAAV | VRIGAPPFP | RRGFARAGTI | 300 |
| | PLLPAPGVA | CTLLPPTSS | SPPSPRFRPW | HAAAPRGOTS | BTHMWRQST | LPGSDTMVSV | 360 |
| | FGLMAQRWQ | HRSLKQFEWG | ILGSWGTWPC | QODWLEKEGQ | VAVLLPRSEG | NTAPKKSRMI | 420 |
| | LDAFAQCCE | VLSLLNCGSK | LLDSNHSQSM | ISCVXQEGSS | YNERQEECHI | GKGVHSQTS | 480 |
| 50 | NVDIEMQYQ | AKQTSAPFL | VFTDSLQNTL | LSGSFTTNP | SSASEYGHIA | DVDPLSTSPV | 540 |
| | HTLEISLDS | TASLCKSRHL | SREPFVKSDP | ENPLQALAG | GASRFSGAQ | QSIAYRVNSE | 600 |
| | LEDGIRSFVP | LSCEALEMDL | TSLSGKQLLN | NYPVYITSKQ | WDEAVNSSKK | DGRELLRLYL | 660 |
| | RFVFTTDELK | YSCGLGKRKR | SVQSGRTGPE | RRPLDPVKVT | CLRGASFRS | VSPSVISFHR | 720 |
| | IGCGSPRTSV | QPSVF | | | | | 735 |
| 55 | Seq ID NO: C402 Protein Sequence | | | | | | |
| | Protein Accession #: BAA92562.1 | | | | | | |
| 60 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | | |
| | METTVLGIN | FEYKGMTGWE | VAGDHIYTAA | GASDNDFMIL | TLVVPGRFP | QSVMADTENK | 60 |
| | EVARITVFPE | YLCNVNCELY | FMVGVNERTN | TFVETWKGSK | GKQSYTYIIE | ENITTSFTWA | 120 |
| | FQRTTFEAS | RXYTNDVAKI | YSINVTNVMN | GVASYCRPCA | LEASDVGSSC | TSCPAGYXID | 180 |
| | RDSGTCHSCP | PNTILKAHPQ | YGVQACVPCG | PGTKNNKIHS | LCYNDCTFSR | NTPRTTFNIN | 240 |
| 65 | FSALANTVTL | AGGSPFTSKG | LKYFHHFTLS | LCGNQGRKMS | VCTDMVTDLR | IPEGESGFESK | 300 |
| | SITAYVCQAV | IIPPEVTGYK | AGVSSQPVSL | ADRLIGVTTD | MTLDGITSPA | ELFHLBSLGI | 360 |
| | PDVIFFYRSN | DVTQSCSSGR | STTIRVRCSP | OKTVPGSLLL | PGTCSGDTCD | QCNFHLWES | 420 |
| | AAACPLCSVA | DYHAYVSSCV | AGIQKTTIVV | REFKLCSSGI | SLPQRVTIC | KTIIDFWLKVG | 480 |
| | ISAGTCTAIL | LTVLTCTYFK | KNQKLEYKYS | KLVMNATLKD | CDLPAADSCA | IMEGEDVEDD | 540 |
| 70 | LIFTSKKSLE | GKIKSFTSKQ | PAPVTISLSE | DS | | | 572 |
| | Seq ID NO: C403 Protein Sequence | | | | | | |
| | Protein Accession #: NP_055139.1 | | | | | | |
| 75 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | | | | | | | |
| | MALQGIVSVE | LSGLAPGRXC | AMVLADFGAR | VVRVDRPGSR | YDVSRLGRGK | RLVLDLKQP | 60 |
| | REPRAAASVQ | AVGCAAGALP | PRCHGSETAG | PRDSAGKSK | AYLCQAEWIN | PVQSSFCRLA | 120 |
| | GHDINYLALS | GVLSKIGRSG | ENFYAPLNIV | ADPAGGGLMC | ALGIIMALFD | RTRTDKGQVI | 180 |
| 80 | DANMVEGTAY | LSSEFLNKTQK | SSLWEAPRGQ | NMLDGGAPFY | TTYRTADGEP | MAVGAIEPQF | 240 |
| | YELLIKSLGL | KSDLEENQMS | TDDWPEMKKK | FADVFAKTKK | AEWCQIEDGT | DACVTPVLTF | 300 |
| | EEVVHHDENK | ERGSFITSEK | QDVSPRLAPL | LANTPAIPSS | KQDPFIEGHT | BEILERFGFS | 360 |
| | REIYQNLNSD | KIIESNKKVKA | SL | | | | 382 |
| | Seq ID NO: C404 Protein Sequence | | | | | | |

Protein Accession #: XP_091332.1

```

5  1 11 21 31 41 51
   | | | | |
MQRWTLWAAA FLTLHSAQAF PQTDISISPA LPELPLPSLC PLFWMEFKGH CYRFFPLNKT 60
WAEADLYCSE FSVGRKSAKL ASIHSWEEV FVYDLVNSCV PGIPADVWTG LHDHRQEQGF 120
EWTGSSSYDY SYADGSSQDD GVHADPBEED CVQIWRPTS EQLOAPEPQL PLISISEATDV 180
YLPEDFPAEP KLMDQSWVSR KSLKPSKSHL MEPTTPVAKH QKAKTRHRSR RGWVWPSGKA 240
10 GSWKERNMAD YGRRKRSAPR QGRRLRCRER RLRAASGQGR PBGQRKQRQQ ERQERGWEEL 300
GGVSPMRGAQ ANQHGGLGAGS QRGAAPECGE NHQAPELGST WRGRLQPTQ AALCHFAERK 360
LPGMAHGLAA AFVQPALQVQ EEKNNRTRFS GAYFTMSDPT CDQDSKEQSL RRHGRBAEKD 420
QPYRLVKKKR GPVACPSSEF LQSGGEVCLD FPVELRAGTW IAREPP 466

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Seq ID NO: C405 Protein Sequence
Protein Accession #: XP_054869.2

```

20 1 11 21 31 41 51
   | | | | |
METCCFPVTL EQDLHRKMKH WMLQTLFAFV TSLVLSCAET IDYYGEICDN ACPCEKIDGI 60
LTVSCENRGI ISLSEISPPR FFIYHLLSG NLLNRLYFNE FVNYTGASIL HLGSNVIQDI 120
ETGAFLGLRG LRRLHLLNNK LELLRDDTFL GLENLEYLQV DYNYSIVIEF NAFQKLIHLQ 180
VLILADNLLS SLFNNLDFRV FLTHLDLRGN RLKLLPYVGL LQEMDKVVEL QLEBNPWNC 240
CELISLQDNL DSISYSALVG DVVCEPFRRL HGRDLDEVSX QELCPRLIS DYEMRPQTPL 300
25 STTGYLEHTP ASVNSVATSS SAVYKPPPLK PKGTQENKP RVRPTSRQPS KDLGYSNYGP 360
SIAYQTKSPV PLECPACSC NLQISDLGLN VNCQERKIES IAELOPKPYN PKMYLITENY 420
IAVVRTDFL BMTGLDLHL GNNRISMIQD RAFGDLNLR RLYLNGRIE RLSPFLPYGL 480
QSLQYLFQY NLIREIQSGT PDPVFNQLL FLNNLLQAM PGGVFSGLTL LELNLRSEF 540
TSLFVSGVLD QKSLIQIDL HDNPDCTCD IVGKMLNVEK LKVGVLNDEV ICKAPKFAE 600
30 TDMRSIKSEL LCEPYSDDVV STPTPSSIQV PARTSAVTPA VRLNSTGAPA SLGAGGGASS 660
VPLSVLLSL LLVFNISVFP AAGLPLVLMK RRKNQSDHT STNNSDVSSF NMQYSVYGGG 720
GGTGGHPEAH VHRGPALEK VETPAGHVE YIPFLGHMC KNPYRSREG NSVEDYKDLH 780
ELKVITYSSNH HLQQQQQPPP PPQQPQQQPP EQQLQPGEE ERRESHLRS PAYSVSTIEP 840
REDLSPVQD ARFAYRGILE PDKHCSTTPA GNSLPEYKPF PCSPAAYTFS PNYDLRRPEQ 900
35 YLHPGAGDSR LRFVLYSPT SAVFVEPNEN EYLELKAKLN VEVDYLEVLE KQTTFSQF 958

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Seq ID NO: C406 Protein Sequence
Protein Accession #: NP_000784.2

```

40 1 11 21 31 41 51
   | | | | |
MGILSVDLLI TLQILPVFFS NCLFLALYDS VILLKHVLL LSRSKSTRGE WRMMLTSBOL 60
RCVMSKFLLD AYKQVKLGED APNNSVVVVS STEGGDNSSN GTQEKIAEGA TCHLLOFASP 120
ERPLVNVFSS ATUPPPTSQI PAFKRLVEEF SEVADFLIVY IDEAPSDGW ATPGSSLSF 180
45 EVKKHQEQED RCAAQQLLE RPSLPQCRV VADRMNNAN IAYGVAFERV CIVQRQKIAY 240
LGGKPPFSYN LQSVRHMLEK NFSKRUUKTR LAG 273

```

Seq ID NO: C407 Protein Sequence
Protein Accession #: NP_006540.2

```

50 1 11 21 31 41 51
   | | | | |
MSSCVSSQPS SNRAAPQDEL GGRGSSSSSS QKPCBALRGL S9LSIHLGME SFIIVTECEP 60
GCAVDLGLAR DRPLEADGQE VPLDSSGSA RPHLSGRKLS LQERSQGGLA AGGSLDMNCR 120
CICPSLPYSP VSSFGSSPRL FRRPTVESHH VSTGMQDCV QLNQYTLKDE IGKSGYGVVK 180
55 LAYNENDNTY YAMKVLSEKK LIRQAGFPFR PPPRGTFRAP GGCIQPRGPI EQVYQRIAL 240
KKLDEPNVVK LLEVLDDENE DILYMVFELV NQGPVMEVFT LKPLSEDAQF FYFQDLIKGI 300
EYLHYQKIIH RDIKPSMLLV GRDGHIKIAD FGVSNFPGS DALLSNTVGT PAFMAPESLS 360
STRKIFSGKA LDVWAMGVTL YCFVPGQCFP MDERIMCLES KIKSQALEFP DQPDIAEDLK 420
60 DLITRMLDKN PESRIIVPRI KLEPWVTRHG AKPLPSSDEN CTLVEVTEKE VENSVKHIPS 480
LATVILVKIM IRKRSFGNPF EGRREERSL SAFGNLLTKK PTRECSLSE LKESARQRQP 540
PGRHPAPRGG GGSALVRGSP CVESCWAPAP GSPARMHPLR PSEAMEPE 588

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Seq ID NO: C408 Protein Sequence
Protein Accession #: NP_061116.2

```

65 1 11 21 31 41 51
   | | | | |
MGLSLPKKKG LILCLWSKFC RNFQRRBSWA QSRDEQNLLQ QKRIWESPLL LAAKDNDVQA 60
LKKLLKYEDC KVBQBGAMGE TALEIAALYD NLEAAMVLM EAPELVFEPM TSELVYEGQTA 120
70 LHIADVNNQM MLVRAALLAR ASVBARATGT AFRRSPCNLI YFGSHPLSFA ACVNSSEIVR 180
LLIEHGADIR AQDGLNTVL EYLILQENKT FACQMYNLL SYDRHGDLQ PLDLVPHNQ 240
LTPFKLAGVE GNTVMPQHLM QKRKHQWY GFLTSTLYDL TEIDSQGEQ SLLELIITTK 300
KREARQILDQ TPKVELVSLK HKRYGRFYFC MLGAIYLLYI ICFMCCIYR PLKPRTNNT 360
SPRDNILLQ KLLQRAYMTP KDDIRLVGEL VTVIGAILL LVEVPIFRM GVTFRFGQTI 420
75 LGGPFVLLI TYAFMVLVTM VMRLISASGE VVPMSEFALV GWCNVMYFAR GFQMLGPFTI 480
MIQMI PGDL MRFCWLMGVV ILGEASAFYI IPQTEDEPEL GHFYDYPMAL FSTFELFLTI 540
IDGPANYNDV LPFMYISITYA APAIYATILM LNLIAMMGD THWRVAHERD ELWRAQIVAT 600
TVMLERKLLR CLWRSRQICG REYGLGDRWF LRVEDRQDIN RQRIQRYAQA FHTRGSEILD 660
80 KDSVSKLELG CFPSPHLSLP MPFSVSRSTSR SSANWERLEQ GTLRDLRLGI INRGLEDGES 720
WEYQI 725

```

Seq ID NO: C409 Protein Sequence
Protein Accession #: NP_068710.1

| | | | | | | | |
|----|--|-------------|------------|------------|------------|------------|-----|
| 5 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | MQKVTILGLLV | FLAGFPVLDA | NDLEDKNSPF | YDWHSLQVQ | GLICAGVLCA | MGIIIVMSEW | 60 |
| | RSSGEQAGRG | WGSPPPLTTQL | SPTGARCKCK | FGQKSGHHPG | ETPPLITPGS | AQS | 113 |
| | Seq ID NO: C410 Protein Sequence Protein Accession #: NP_005962.1 | | | | | | |
| 10 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | MQKVTILGLLV | FLAGFPVLDA | NDLEDKNSPF | YDWHSLQVQ | GLICAGVLCA | MGIIIVMSAK | 60 |
| | CKCKFGQKSG | RHPGETPPLI | TPGSAQS | | | | 87 |
| | Seq ID NO: C411 Protein Sequence Protein Accession #: NP_004952.1 | | | | | | |
| 20 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | MLSKVLPLVL | GILLYLQSRV | EGPQTESKNE | ASSRDVVYGP | QPQPLENQLL | SETKSTETE | 60 |
| | TGSRVGLKPE | ASRLILNLS | NYDHKLKPGI | GEKPTVVTV | IAVNSLGLS | ILDMEYTIDI | 120 |
| | IFSQTWYDER | LCYNDTFESL | VLNGNVVSQL | WIPDTFFRNS | KRTHHEITM | ENQMVRIYKD | 180 |
| | GKVLITIRMT | IDAGCSLHML | RFPMDSSSCP | LSFSSESYPE | NEMLYKWNF | KLEINEKNSW | 240 |
| | KLFPQDFTGV | SNKTEIITP | VGDPMVMTIF | FNVSRRFGIV | AFQNYVPSSV | TTMLSWVSW | 300 |
| 25 | IKTESAPART | SLGITSVLTM | TTLGTFRRKN | FRVSYITAL | DFYIALCFVP | CPCALLEFAV | 360 |
| | LNFLIYNQTK | AHASPKLRHP | RINRAHART | RARSACARQ | HQBFAVCQIV | TTEGSDGEER | 420 |
| | P6CSAQPPS | PGSPGPESL | CSKLACCWC | KRFKKYFCMV | PDCSGSTWQQ | GRLCIHVYEL | 480 |
| | DNYSRVVFPV | TFFPFNVLYN | LVCNLN | | | | 506 |
| | Seq ID NO: C412 Protein Sequence Protein Accession #: NP_068819.1 | | | | | | |
| 35 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | MEYTDIIIFS | QTYWDERLCY | NDTFESLVIN | GNVVSQWLIP | DTFFRNSKRT | HEHEITMPNQ | 60 |
| | MVRIYKDGKV | LYTIRMTIDA | GCSLHMLRFP | MDSHSCPLSF | SSFSYPENEM | IYKWNFKLE | 120 |
| | INEKNSWKL | QDFTGVSNK | TEIITTFVGD | FMVMTIFFNV | SRFYGVAFO | NYVPSSVTM | 180 |
| | LSWVSEWIKT | ESAPARTSLG | ITSVLMTITL | GTFSRKNFPR | VSYITALDFY | LAICFVFCFC | 240 |
| | ALLEFAVLNF | LIYNQTKAHA | SPKLRHPRIN | SRAHARTAR | SRACARQHQ | AFVCQIVTTE | 300 |
| 40 | GSDGEERPSC | SAQPPSPGS | PEGPRSLCSK | LACCENCKRF | KKYFCMVPCD | EGSTWQQARL | 360 |
| | CIHVYRLDNY | SRVVPVTFP | FFNVLYWLVC | LNL | | | 393 |
| | Seq ID NO: C413 Protein Sequence Protein Accession #: NP_068822.1 | | | | | | |
| 45 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | MEYTDIIIFS | QIWNKRTRH | HEITMPNQMV | RIYKDGKVLV | TIRMTIDAGC | SLHMLRPFMD | 60 |
| | SHSCPLSFS | FSYPENEM | KWENFKLEIN | EKNWKLQF | DFTGVSNKTE | IITTFVGDFM | 120 |
| 50 | VMITFPNVR | RFYVAFQNY | VPSSVTMLS | WVSFWIKTES | APARTSLGIT | SVLMTITLGT | 180 |
| | FSRKNFPRVS | YITALDFYIA | LCFVFCFAL | LEFAVLNFLI | YNQTKAHASF | KLRHPRINSR | 240 |
| | AHARTRARS | ACARQHOF | VQIVTTEGS | DGEERPSCSA | QQPSPGSPS | GPRSLCSKLA | 300 |
| | CCENCKRFFK | YFCMVPCDG | STWQQGLCI | HVYRLDNYSR | VVPFTTFFF | NVLYWLVCIN | 360 |
| | I | | | | | | 361 |
| | Seq ID NO: C414 Protein Sequence Protein Accession #: NP_068830.1 | | | | | | |
| 60 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | MEYTDIIIFS | QTYWDERLCY | NDTFESLVIN | GNVVSQWLIP | DTFFRNSKRT | HEHEITMPNQ | 60 |
| | MVRIYKDGKV | LYTIRMTIDA | GCSLHMLRFP | MDSHSCPLSF | SSFSYPENEM | IYKWNFKLE | 120 |
| | INEKNSWKL | QDFTGVSNK | TEIITTFVGD | FMVMTIFFNV | SRFYGVAFO | NYVPSSVTM | 180 |
| | LSWVSEWIKT | ESAPARTSLG | ITSVLMTITL | GTFSRKNFPR | VSYITALDFY | LAICFVFCFC | 240 |
| 65 | ALLEFAVLNF | LIYNQTKAHA | SPKLRHPRIN | SRAHARTAR | SRACARQHQ | AFVCQIVTTE | 300 |
| | GSDGEERPSC | SAQPPSPGS | PEGPRSLCSK | LACCENCKRF | KKYFCMVPCD | EGSTWQQARL | 360 |
| | CIHVYRLDNY | SRVVPVTFP | FFNVLYWLVC | LNL | | | 393 |
| | Seq ID NO: C415 Protein Sequence Protein Accession #: NP_068591.1 | | | | | | |
| 70 | 1 | 11 | 21 | 31 | 41 | 51 | |
| | MPAVSGPGPL | FCILLILLDF | HSPBTGCPPL | KRFYKLSFK | GPRALPGAG | IPFWSHHGDA | 60 |
| | ILGLEEVRLT | PSMRNRSGAV | WSRASVPFA | WEVEVQMRVT | GLGRRGAHGM | AVWYTRGRGH | 120 |
| 75 | VGSVLGLAS | WDGIGIFFDS | PAEDTQDSPA | IRVLASDGH | PSEQPGDGAS | QQLGSCWDF | 180 |
| | RNRPHPRAR | ITYWQRLRM | SLNSGLTSPD | PGEFCVDVGP | LLLVPGGFFG | VSAATGTLD | 240 |
| | DHDVLSPLTF | SLSEPSSEVP | PQPFLEMQQI | RLARQLBGLM | ARLGLCTRED | VTPKSDSEAR | 300 |
| | GEGERLFDLE | ETLGRHRRIL | QALRGLSKQL | AQASRQWKKQ | LQPPGQARPD | GGWALDASCQ | 360 |
| 80 | IPSTPGRGKH | LSMSLNKDSA | KVGALHGGW | TLLQALQEMR | DAAVRMAAEA | QVSYLVFGIE | 420 |
| | HHFLELDHIL | GLLQBELRGP | AKAAAKAPR | PGQPPRASSC | LQPGIFLFYL | LIQTVGFFGY | 480 |
| | VHFRQELNKS | LQECLESTGSL | FLGPAPHTPR | ALGILRRQEL | PASMPA | | 526 |
| | Seq ID NO: C416 Protein Sequence Protein Accession #: XP_117036.1 | | | | | | |

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|-----------------------------------|-------------|------------|------------|------------|-------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MERRTRGALG | SRPPFPPLPA | LRHLCTGLQA | AGMANPGTLN | RHTCQGRAXA | ABGPWGLFRP | 60 |
| HRCPREAGQA | PVGPSPETQG | VAHVCSRARV | SVDEREPGGG | AYAMHVTFRW | KGCHRHSGRT | 120 |
| VRGSVSNKRP | EQAAPETGRG | PAVARGSGDG | NECGWG | | | 156 |
| Seq ID NO: C417 Protein Sequence | | | | | | |
| Protein Accession #: KP_167803.2 | | | | | | |
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MPGKGQRKTA | TNKPGLPGA | PGVGIGGHCL | YVLECKCFIK | NKTKTHHHKK | KNFAAKRNEE | 60 |
| KLKKKKQKEK | KNATKFFHHT | YPLSQQDFLF | AKSYFCGNP | CFLWQGLF | | 108 |
| Seq ID NO: C418 Protein Sequence | | | | | | |
| Protein Accession #: NP_079056.1 | | | | | | |
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MFRIVERYEM | PRHEVYVLLI | RNIFLKISII | GILCYWLNT | VALSGEECWE | TLIGQDIYRL | 60 |
| LLMDFVPSLV | NSFLGEFLRR | IIGMQLITSL | GLQEFDIARN | VLELIYAQTL | VWIGIFFCPL | 120 |
| LPFIQIMLFL | IMPYSKNISL | MMNFQPPSKA | WRASQMTFF | IFLLFFPSFT | GVLCITLAIIT | 180 |
| WRLKPSADCG | PFRLPLFIH | SIYSWIDTSL | TRPGYLWVW | IYRNLIQSVH | PFILITLIVL | 240 |
| IIITYLYNQIT | EGRKIMIRLL | HEQIINEGKD | KMFLIEKLIK | LQDMEKKANP | SSIVLERREV | 300 |
| EQQGFLLHGE | HDGSLDLRSR | RSVQEGNPRA | | | | 330 |
| Seq ID NO: C419 Protein Sequence | | | | | | |
| Protein Accession #: Eos sequence | | | | | | |
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MLSDDHVNEI | IIQVENVSNG | VQSHPSNQI | FQEKVLLDSS | INMVLSDI | DVIDSQTVSK | 60 |
| RNDQKGNQVL | RFTSLNEEM | SQTLHSLRCM | GIDTPGSSHE | TVQGQKLIAS | LIPMTGRDRI | 120 |
| KAIRNQPRIM | BEKNLEKIV | DKEKSKQTER | ILQLNCCIQC | LNSISRAYRR | SKNSLSEILN | 180 |
| SISLWQKTLK | IIIGKFGTSV | LSYFNFLRWL | LKFNIFSFIL | NFSFIIPQF | TVAKNTLQF | 240 |
| TGLEFFTGVG | YFRDTVMYVG | FYTNSTIQHG | NSGASYNMQL | AYIFTIGACL | TTCTFFSLFS | 300 |
| MAKYFRNNFI | NPHIYSGGIT | KLIFCHDFTV | THEKAVKLKQ | KNLSTEIREN | LSELRQENSK | 360 |
| LTFNQLLRFR | SAYMVANVVS | TGVAIACCAA | VYLAAYNLE | FLKTHSNFGA | VLLLPFVWSC | 420 |
| INLAUPCIYS | MFRIVERYEM | PRHEVYVLLI | RNIFLKISII | GILCYWLNT | VALSGEECWE | 480 |
| TLIGQDIYRL | LLMDFVPSLV | NSFLGEFLRR | IIGMQLITSL | GLQEFDIARN | VLELIYAQTL | 540 |
| VWIGIFFCPL | LPFIQIMLFL | IMPYSKNISL | MMNFQPPSKA | WRASQMTFF | IFLLFFPSFT | 600 |
| GVLCITLAIIT | WRLKPSADCG | PFRLPLFIH | SIYSWIDTSL | TRPGYLWVW | IYRNLIQSVH | 660 |
| PFILITLIVL | IIITYLYNQIT | EGRKIMIRLL | HEQIINEGKD | KMFLIEKLIK | LQDMEKKANP | 720 |
| SSIVLERREV | EQQGFLLHGE | HDGSLDLRSR | RSVQEGNPRA | | | 760 |
| Seq ID NO: C420 Protein Sequence | | | | | | |
| Protein Accession #: NP_002241.1 | | | | | | |
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MGGDLVLGLG | ALRRRKRLLE | QEKSLAGWAL | VLAGTGIGLM | VLAEMLWFG | GCSWALYLF | 60 |
| VKCTISISTF | LLCLLIYAFH | AKEVQLFMTD | NGLRDWRVAL | TGRQAAQIVL | ELAVCGLEPA | 120 |
| PVRGPCCQOD | LGAPLTSFQP | WPGFLQGEA | LISLAMLRL | YLVPRAVLLR | SGVLLNASYR | 180 |
| SIGALNQVRF | RHWFAVKLYM | NTHFGRLLLG | LTGLGLWTTA | WVLSVAERQA | VNATGHLSDT | 240 |
| LWLIPITPLT | IGYGDVVPFT | MWGIIVCLCT | GVMGVCCIAL | LVAVVARLKE | FNKAKEKHVN | 300 |
| FMMDIQYTKK | MEESAAAVLQ | EAMMFYKHTR | RKESHAARRH | ORKLLAALNA | FRQVRLEHRE | 360 |
| LREQVNSMVD | ISKNHMILYD | LQQNLSSSHR | ALEKQIDTLA | GKLDALTELL | STALGPRQLP | 420 |
| EPGQSK | | | | | | 427 |
| Seq ID NO: C421 Protein Sequence | | | | | | |
| Protein Accession #: NP_079533.1 | | | | | | |
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MGGKQDEDD | EAYGKPVKYD | PSFRGPIKNR | SCDVICCVL | FLLFILGYIV | VGIVAWLYGD | 60 |
| PRQVLYPRNS | TGAYCGMOEN | KDKFYLLYPN | IFSCILSSNI | ISVAENGLQC | PTPQVCVSSC | 120 |
| PEDPWTVGKN | EFSTQVGEVF | YTKNRNFCPL | GVPWNMTVIT | SLQQLCPSE | LLPSAPALGR | 180 |
| CEFWNITFP | ALPGITNDTT | IQQGISGLID | SLNARDISVK | IFEDPAQSWY | NILVALGVAL | 240 |
| VLSLLEFILL | RLVAGPLVLV | LILGVLGVLA | YGIYYCWREY | KVLKDKGASI | SQLGFTTNLS | 300 |
| AYQSVQETWL | AALIVLAVLR | AILLVLIFL | RQRIRIATL | LKEASKAVGQ | MMSTMFPPLV | 360 |
| TFVLLICIA | YWANTALYPL | PTQBATLGIV | LWASNISSEF | CEKVEINTSC | NPTAHLVNSG | 420 |
| CPGLMCVPOG | YSSKGLQORS | VFNLOIYGV | GLEFTLNWVL | ALGQCVLAGA | PASFYWAFHK | 480 |
| PQDIPTFPLI | SAFIRTLRYH | TGSLAFGALI | LTLVQIARVI | LEYIDHKLGR | VQNFVARCIM | 540 |
| CCFKOCLNCL | EKFIKFLNRN | AYIMIAIYK | NFCVSAKNAP | MLLMRNIVRV | VVLDDKVTDL | 600 |
| LFPGLLVVG | GVGVLSPFF | SGRIPGLGRD | PKSPHLYYW | LPIMTSILGA | YVIASGFFSV | 660 |
| FGMCDTTLFL | CFLDLEENN | GSLDRPYTMS | KSLKILGKK | NEAPPDNKKR | KK | 712 |
| Seq ID NO: C422 Protein Sequence | | | | | | |
| Protein Accession #: NP_057264.1 | | | | | | |
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MGSNAGQAGR | HIYKSLADDG | PFDSVEPPKR | PTSLIMHSM | AMPGREFCYA | VSAAYVTPVL | 60 |

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LSVGLPSSLY SIWVFLSPIL GFLIQFVVGS ASDHCRSRWG RRRPYILTLG VMMLVGMALY 120
LNGATVVAAL IANPRRLKLV AISVTMIGVV LFDPAADFID GPIKAYLFDV CSHQDKKGL 180
HYHALPTGFG GALGYILGAI DWAHLELGRLL LGTEFQVMFF PSALVLTLCF TVHLCSISEA 240
PLTEVAKGIP PQQTPODPPL SSDGMYEYGS IEKVNGYVN PELAMQGAKN KNHABQTRRA 300
MTLKSLLRAL VMMPHYRYL CISHLIGWTA FLSNMLFFTD FMQIVYRGD PYSAINSTEF 360
LIYERGVEVG CWGFCINSVF SSLYSYFQKV LVSYIGLKL YPTGVLLFGL GTGFIGLFPN 420
VYSTLVLCSL FGVMSSTLYT VPFNLITEYH REBEKERQQA PGSDPNSVR GKGMDCATLT 480
CMVQLAGILV GGGLGFLVNT AGTVVVVVIT ASAVALIGCC FVALFVRYVD 530
  
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Seq ID NO: C423 Protein Sequence
 Protein Accession #: NP_003264.1

15
 20
 25

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1 11 21 31 41 51
MEGFGGVGGR GTRGFAAKGV WRGRAEBGPV LGAAERGFMV STGSRRRVFE GPGGGGLRWT 60
PGKGTGRQRG AWGPRAEDGV RRRTLCMPRG SRDVRAPCG DAGSWGARGG RREDGFSRRR 120
RGSATAAARH HVPPAPGGPF GPRAPAGSTR VPARAGGAVE PTGAAAVARL ARPAGGALPT 180
AGAQQAGPAR GRSGEGSEWA RRGKGRPGFY QSLGPAVAE GQELKDKSRL RYPINGQAL 240
VLTLALLVGLG MSAGLPLGLL PEMLLPLAFV ATLTAFIFSL FLYMKAQVAP VSALAFGGNS 300
GNPIYDFELG REINFRICFF DFKYFCELRP OLIGWVLINL ALLMKAEELR GSPSLAMMLV 360
NGFQLLYVDL ALWHEEAVLT TMDITHDQFG FMLAFQDMAN VPPTYSLQAQ PLLHHPQPLG 420
LPMASVICLI NATGYIYFRG ANSQNTFRK NPSDFRVAGL ETISTATGRK LLVSGWVGWV 480
RHPNYLGLDI MALAWSLPCG VSHLLPYFYL LYPTALLVHR BARDERSACR STAWPGRSTA 540
GVCLTASCTP STERAPFPQV GHVPTTPPAE PGPGASTELG LKGLHPTCP 589
  
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Seq ID NO: C424 Protein Sequence
 Protein Accession #: NP_056535.1

30
 35
 40

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1 11 21 31 41 51
MGRLLRAARL PPLLSPLLLL LVGGAPLGAC VAGSDEPGFE GLTSTSLIDL LLPTGLEPLD 60
SEEPSETMGL GAGLGAPGGG FPSENEESR ILQPPQYFWE EEEELNDSSL DLGPTADYVF 120
PDLTEKAGSI EDTSQAGQLP NLPSPLPKMN LVEPPWHMPP REEEEEEERE EREKEKEVEK 180
QEEEEEEELL FVNGSGEEAK PQVEDFSLTS SSQTPGATES RHEDSGDQAS SGVEVESSMG 240
PSLLLLPSVTP TTVTPGQDQS TSQEAETVL PAAGLGVEFE APQASEEAT AGAAGLSGQH 300
KEVPALPSEF QITAPSGAEH PDEDPLGSR TASSPLAPGD MELTPSSATL QGEDLNQQLL 360
BQQAEEAQR IPWDSTQVIC KDWSNLAGRN YIILNMTENI DCEVFRQERG PQLLALVEEV 420
LFRHSGSGHG AWHISLSKPS EKEQHLLMTL VGEQGVVPTQ DVLSEMLGDIR RSLKEEIGQN 480
YSTTSQQAR ASQVRSYGT LFVVLVVIGA ICTIIIALGL LYNCWQRRLP KLKEVSRGEE 540
LRFVENGCHD NPTLDVASDS QSEMQEKHP LNNGGALNGP GSWGALMGSK RDPEDSDVFE 600
EDTHL 605
  
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Seq ID NO: C425 Protein Sequence
 Protein Accession #: NP_001188.1

45
 50

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1 11 21 31 41 51
MSEVRPLSRD ILMETLLYEQ LLEPPTMEVL GMTDSEEDLD FMEDEDSLEC MEGSDALALR 60
LACIGDEMIV SLRAPRLAQL SEVAMHSLGL APIYDQTEI RDVLRSMWG FTLKKNIMR 120
FNRSPMPGSW VSCQVLLAL LLLALLLPL LGGGLHLLK 160
  
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Seq ID NO: C426 Protein Sequence
 Protein Accession #: AAF76225.1

55
 60

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1 11 21 31 41 51
MATPLPPPSF XHLRLRLRL LGLVLGAALR GAAAGHPDVA ACPGSLDCL KRRARCPPGA 60
HACGCLQPF QEDQGLCVF RMREPPGGGR PQRLDEID FLAQELARKE SGQSTPLPK 120
DRQLPEPAT LGFSARGQL ELGLPSTPGT FTFPTHTSLG STVSSDPVEM SFLEPRGGQG 180
DGLALVLLA FCVAGAAALS VASLCWCRLQ REIRLTQKAD YATAKAGSP AAFRISPGDQ 240
RLAQSAEMVH YQHQRQMLC LERHEKPEKE LDTASSDEEN RDGDPTVYEC PGLAPTGEH 300
VRMPLFDHAA LSAPLEPAPSS PPALP 325
  
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65
 70

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1 11 21 31 41 51
MVCBLVLLL VSSVLALREV LLDITGETSE IGWLTYPGCG WDEVSVLDDQ RRLTRTFEAC 60
HVAGAPPTG QDNWLQTHFV ERRGAQRAHI RLHFSVRACS SLGVSGGTCR EFTLYYRQA 120
KEPDSPPDSV SWHLKRWTKV DTIAADESFF SSSSSSSSSS SAANAVGPHG AQQRAGLQIN 180
VKERSFGPLT QRGFYVAFQD TGACIALVAV RLFSYTCPAV LRSFASFFET QASGAGGREL 240
VAAVGTCAH AKPEEDGVGG QAGGSPPRLH CNBEGKMWVA VGGCRQPGY QPARGDKACQ 300
ACPRGLYKSS AGNAPCSPCF ARSHAENEA PVPCLGSEFY RASSDPFEAP CTGPFSAPE 360
LMFEVQGSAL MLHWRPLREL GGRGDLLEFN VCKECEGRQE PASGGGGTCE RCRDEVHFD 420
RQGLTESRV LVGGLRAEVP YILEVQAVRG VSELSPDPQ AAALNVETSH EYPSAVPVVH 480
QVSRASNSIT VSWPQPDQIN GNILDYQLRY YDQAEDESH FTLTSETWTA TVTQLSPGHI 540
YGFQVART AAGHPYGGKV YFQTLRQGL SSQPLPERLSL VIGSILGALA FLLAAITVL 600
AVVQKRRG TGYTEQLQY SSPGLGVKXY IDPSTYEDPC QAIRELAREV DPAYIKIEV 660
IGTSPGFEV QGRQLPRGR EDTVAILQAL AGGASLQMT FLGRAAVLQ FQHPNIRLE 720
GVVTKSRPLM LDTSEFLRQEG QFSSILQVAM QRGVAAAMQY LSSFAFVHS 780
LSAESVLVNS HLVCVKARLG HSPQGFSCLL RWAAPVIAH GKHTTSDVW SPGILMWEVM 840
SYGERPYWDM SQGEVLNATE QBFRLEPPPG CPPGLLEMLL DTWQKDRARR PHFDQLVAAP 900
DKMKIKPTIL QAGGDPGERP SQALLTFVAL DFPCLDSFQA WLSAIGLEY QDNFSKFGLC 960
  
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TFSDVAQLSL EDLPALGITL AGHQKLLHH IQLLQQLRQ QGSVEV 1006

Seq ID NO: C428 Protein Sequence
Protein Accession #: XP_043340.2

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|-------------|------------|-------------|-------------|-------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MPFDFFRRPDI | YRKVPKDLTQ | PTTGTGAIISI | CCCLFILFLF | LSELTGFPITT | EVVNELYVDD | 60 |
| PKDSSGGKID | VSLNLSLPLN | HCELVLGLDIQ | DEMGRHEVGH | IDNSMKIPLN | NGAGCRFFEQ | 120 |
| FSINKVPGNF | HVSTHSATAQ | PQNPDMTHTV | HKLSEFGDTLQ | VQNIHGAFNA | LGGADRLTSN | 180 |
| FLASHDYILK | IVFTVYEDKS | GKQYYSYQYT | VANKEYVAYS | HTGRIIPAIN | FRYDLSPITV | 240 |
| KYTERRQPLY | RFITTICAI | GCTFTVAGIL | DSCIFTASEA | WKRIQLGKMH | | 290 |

Seq ID NO: C429 Protein Sequence
Protein Accession #: NP_002142.1

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|------------|------------|-------------|-------------|-------------|-------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MAQKEGGRTV | PCCSRPKVAA | LTAGTLLLLT | AIGAASNAIV | AVLLRSDDQEP | LYFVQVSSAD | 60 |
| ARLMVFDKTE | GTNRLLCSSR | SNARVAGLSC | EEMGFILRAIT | HSELDVRTAG | ANGTSGFFCV | 120 |
| DEGRLPHTOR | LLEVISVDCD | PRGRFLAALC | QDCGRRLFPV | DRIVGGRDTS | LGRWPNQVSL | 180 |
| RYDGAHLCCG | SLLSGDVILT | AAHCPPERNR | VLSRRRVFAG | AVAQASPHGL | QLGVQAVVYH | 240 |
| GGYLPFRDPN | SEENSNDIAL | VELSSPLFLT | EYIQPVCLPA | AGQALVDGKI | CTVTGNGWTQ | 300 |
| YGGQAGVLQ | BARVPIISND | VCNGADFYCN | QIKPKMPCAG | YFEGGIDACQ | GDSSGGPFVCE | 360 |
| DSISRTPRWR | LCISVSWGTG | CALAQRKPGVY | TKVSDFREWI | FQAIKTHSEA | SGMVTQL | 417 |

Seq ID NO: C430 Protein Sequence
Protein Accession #: BAA92562.1

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|------------|-------------|------------|------------|-------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| METIVLSGIN | FEYKGMTGWE | VAGDHIYTAA | GASDNDFMIL | TLVVPGFRPP | QSVMDATENK | 60 |
| EVARITVFEE | TLCSVNCELY | FMVGVNSRTN | TPVETNKGSK | GKQSYTYILE | ENTTTSFTWA | 120 |
| FQRTTFHEAS | RKYINDVAKI | YSINVTNVMN | GVASYCRPCA | LEASDVGGSC | TSCPAGYYID | 180 |
| RDSGTCHSCP | PNITLCAHQF | YGVQACVPCG | PGTKNNKIHS | LCYNDCTFSR | NTEPTFTFNK | 240 |
| FSALANTVTI | AGGSPSTSKG | LKYPERFTLS | LCGNQGRKMS | VCIDNVITDLR | IPEGSEGFSS | 300 |
| BITAYVQOAV | IIPPEVTGYK | AGVSSQFVSL | ADRLIGVITD | MTLDGITSFA | ELPHLESGLI | 360 |
| EDVIFPYKSN | DVTQSCSSGR | STTIIVRCSP | QRTVPGSLLL | PGTCSGDTCD | GCNFHFLWES | 420 |
| AAACPLCSVA | DYNAIVSSCV | AGIQKTTYVM | REPKLCSGGI | SLPEQRVTIC | KTIDFWLKVQ | 480 |
| ISAGTCTAIL | LTVLTCTYFWK | KNQKLEYKYS | KLVMMATLKD | CDLPAADSCA | IMEGEVEDDD | 540 |
| LIFTSKKSLF | GKIKSPISKQ | PAPVTISLSE | DS | | | 572 |

Seq ID NO: C431 Protein Sequence
Protein Accession #: NP_004855.1

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|------------|------------|------------|------------|------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MPGOELRTVN | QSQMLLVLLV | LSWLPHGGAL | SLAASRASAF | PGPSELHSD | SRYPRHLRKY | 60 |
| EDLLRRLRAN | QSWEDSNTDL | VPAPAVRIIT | FEVRLGSGGH | LHLRISRAAL | PEGLPEASRL | 120 |
| HRALFRLSPT | ASRSWDVTRP | LERQLSLARP | QAPALHLRLS | PPPSQSDOLL | AESSSARFQL | 180 |
| ELHLFPQAAR | GRRRARARNG | DDCPLGFGRC | CRHTVTRASL | EDLGNADWVL | SPREVQVTMC | 240 |
| IGACPSQFRA | ANMBAQIKTS | LHRLKPDTEF | APCCVPASYN | PMVLIQRTDT | GVSLQTYDDL | 300 |
| LAKDCHCI | | | | | | 308 |

Seq ID NO: C433 Protein Sequence
Protein Accession #: NP_443090.1

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|------------|------------|------------|------------|------------|-------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MEDPSGAREP | RARPRERDPG | RRPHPDQGR | HDRPRDRPGD | PRRKRSSDGN | RRRDGDQDDPK | 60 |
| RDQERDGNRD | RNRDRERERE | RERDPDRGFR | RDTHRDAGFR | AGEHGVWEKP | RQSRTRDGAR | 120 |
| GLTMDAAAPP | GPAPWEAREP | PQPQRKGDPG | RRRPESRPFS | ERYLPSTFRP | GREVEYYQS | 180 |
| EABGILECHK | CKYLCTGRAC | CQMLEVLLNL | LILACSSVSY | SSTGGYTGIT | SLGGITYYQF | 240 |
| GGAYSGFDGA | DGEKAQQLDV | QFYQLKLPV | TVAMACSGAL | TALCCLFVAM | GVLRVFWCEP | 300 |
| LLLVTEGLLD | MLIAGGYIPA | LYFYFHYLSA | AYGSPVCKER | QALYQSEKYS | GFGCSFEGAD | 360 |
| IGAHIFAALG | IVVFALGAVL | AIKGYRVRK | LKERPAEMFE | F | | 401 |

Seq ID NO: C435 Protein Sequence
Protein Accession #: Bos sequence

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|------------|-------------|-------------|------------|-------------|------------|-----|
| 1 | 11 | 21 | 31 | 41 | 51 | |
| MGAAGRQDFL | FKAMLTISWL | TLTCFPGATS | TVAAGCPDQS | PELQFWNPGH | DQDHHVHIGQ | 60 |
| GXTLLLTSSA | TVYSIHISEG | GKLVINKDEDE | FIVLRTRHIL | IDNGGELHAG | SALCPFGQNF | 120 |
| TTILYGRADZ | GIQDPDYYGL | KYIGVGKGGG | LELHGQKKLS | WTFNLKTLHF | GGMAEGGYFF | 180 |
| ERSWGHGRVI | VHVIDPKSGT | VHSDFRFDY | RSKKESERLV | QYLNAVDPGR | ILSVAVNDEG | 240 |
| SRNLDDMARK | AMTKLGRHF | LELGFRRHFW | FLTVKGNPSS | SVEDHLEYHG | HRGSAARVP | 300 |
| KLFQTEHGEY | FNVLSSSEWV | QDVEWTEWFD | HDKVSQIKGG | EKISDLNKAH | PGKICNRPID | 360 |
| IQATTMDGVN | LSTEVVYKKG | QDYRFACYDR | GRACRSYVR | FLCGKPFVZPK | LTVTIDTFVN | 420 |
| STILNLEDNV | QSWKPGDTLV | IASTDYSMYQ | AESEFQVLP | SCAPNQVQVA | GKPMYLIHGE | 480 |
| EIDGVDMAAE | VGLLSRNLIIV | MGEEMDKCYP | YRNHCNFFD | FDTFGGHILK | ALGFKAHLR | 540 |
| GTLEKHMGOQ | LVGOYPIHEH | LAGDVDERGG | YDEPTYIRDL | SIHRTFRCV | TVHGSNGLLI | 600 |
| KDVVGYNLSG | ECFTFEDGPE | SRNTFDEHCLG | LLVKSCTLLP | SORDSKMKCM | ITEDSYGYI | 660 |
| PKPRQDCNAV | STFWMANPNN | NLINCAAAGS | EEGTGFWFIH | HVPTGPSVGM | YSPGYSEHIP | 720 |

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| LGKPYNNRAH | SNYRACMIID | NGVKTTEASA | KDKRPFLSII | SARYSPHQDA | DPLKPREPAI | 780 |
| IRHFIAYKNQ | DHGAWLRGGD | VWLDSCFRG | EAQEGFLTG | MKAGGILLGG | DEAASGMAQG | 840 |
| FSPPCRCLLK | LVTGSPFAH | VSLAHS | | | | 866 |

5

It is understood that the examples described above in no way serve to limit the true scope of this invention, but rather are presented for illustrative purposes. All publications, sequences of accession numbers, and patent applications cited in this specification are herein
5 incorporated by reference as if each individual publication, accession number, or patent application were specifically and individually indicated to be incorporated by reference.

WHAT IS CLAIMED IS:

1 1. A method for determining the presence or absence of a pathological cell in a
2 patient, said method comprising detecting a nucleic acid comprising a sequence at least 80%
3 identical to a sequence as described in Tables 2A-80 in a biological sample from said patient,
4 thereby determining the presence or absence of said pathological cell.

1 2. The method of Claim 1, wherein:
2 a) said pathology is described in Table 1, including a cancer; and/or
3 b) said biological sample comprises isolated nucleic acids.

1 3. The method of Claim 1, wherein said biological sample is tissue from an organ
2 which is affected by said pathology of Table 1, including a cancer.

1 4. The method of Claim 2, wherein said nucleic acids are mRNA

1 5. The method of Claim 2:
2 a) further comprising a step of amplifying nucleic acids before said step of detecting
3 said nucleic acid; or
4 b) where said detecting is of a protein encoded by said nucleic acid.

1 6. The method of Claim 1, wherein said nucleic acid comprises a sequence as
2 described in Tables 2A-80.

1 7. The method of Claim 2, wherein:
2 a) said detecting step is carried out by:
3 i) using a labeled nucleic acid probe;
4 ii) utilizing a biochip comprising a sequence at least 80% identical to a sequence
5 as described in Tables 2A-80; or
6 iii) detecting a polypeptide encoded by said nucleic acid; or
7 b) said patient is:
8 i) undergoing a therapeutic regimen to treat said pathology of Table 1; or
9 ii) is suspected of having said pathology or cancer.

1 8. An isolated nucleic acid molecule comprising a sequence as described in
2 Tables 2A-80.

- 1 9. The nucleic acid molecule of Claim 8, which is labeled.
- 1 10. An expression vector comprising the nucleic acid of Claim 8.
- 1 11. A host cell comprising the expression vector of Claim 10.
- 1 12. An isolated polypeptide which is encoded by a nucleic acid molecule
2 comprising a sequence as described in Tables 2A-80.
- 1 13. An antibody that specifically binds a polypeptide of Claim 12.
- 1 14. The antibody of Claim 13:
2 a) conjugated to an effector component;
3 b) conjugated to a detectable label, including a fluorescent label, a radioisotope, or a
4 cytotoxic chemical;
5 c) which is an antibody fragment; or
6 d) which is a humanized antibody.
- 1 15. A method for specifically targeting a compound to a pathological cell in a
2 patient, said method comprising administering to said patient an antibody of Claim 13,
3 thereby providing said targeting.
- 1 16. A method for determining the presence or absence of a pathological cell in a
2 patient, said method comprising contacting a biological sample with an antibody of Claim 13.
- 1 17. The method of Claim 16, wherein:
2 a) said antibody is conjugated to:
3 i) an effector component; or
4 ii) a fluorescent label; or
5 b) said biological sample is a blood, serum, urine, or stool sample.
- 1 18. A method for identifying a compound that modulates a pathology-associated
2 polypeptide, said method comprising the steps of:

- 3 a) contacting said compound with a pathology-associated polypeptide, said
4 polypeptide encoded by a polynucleotide that selectively hybridizes to a sequence
5 at least 80% identical to a sequence as described in Tables 2A-80; and
6 b) determining the functional effect of said compound upon said polypeptide.

1 19. A drug screening assay comprising the steps of:

- 2 a) administering a test compound to a mammal having a pathology of Table 1 or a
3 cell isolated therefrom; and
4 b) comparing the level of gene expression of a polynucleotide that selectively
5 hybridizes to a sequence at least 80% identical to a sequence as described in
6 Tables 2A-80 in a treated cell or mammal with the level of gene expression of said
7 polynucleotide in a control cell or mammal, wherein a test compound that
8 modulates said level of expression of the polynucleotide is a candidate for the
9 treatment of said pathology.
10

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| 60/359,077 | 20 February 2002 (20.02.2002) | US |
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| 60/386,614 | 5 June 2002 (05.06.2002) | US |
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(71) Applicant (for all designated States except US): **PRO-TEIN DESIGN LABS, INC.** [US/US]; 34801 Campus Drive, Fremont, CA 94555 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **AFAR, Daniel** [CA/US]; 435 Visitacion Avenue, Brisbane, CA 94005 (US). **AZIZ, Natasha** [US/US]; 411 California Avenue, Palo Alto, CA 94306 (US). **GINSBURG, Wendy, M.** [US/US]; 655 Page Street, San Francisco, CA 94117 (US). **GISH, Kurt, C.** [US/US]; 37 Artuna Avenue, Piedmont, CA 94611 (US). **GLYNNE, Richard** [GB/US]; 2691 Palomino Circle, La Jolla, CA 92037 (US). **HEVEZI, Peter, A.** [GB/US]; 1360 11th Avenue, San Francisco, CA 94122 (US). **MACK, David, H.** [US/US]; 2076 Monterey Avenue, Menlo Park, CA 94025 (US). **MURRAY,**

Richard [US/US]; 22643 Woodridge Court, Cupertino, CA 95014 (US). **WATSON, Susan, R.** [GB/US]; 805 Balra Drive, El Cerrito, CA 94530 (US). **WILSON, Keith, E.** [US/US]; 219 Jeter Street, Redwood City, CA 94062 (US). **ZLOTNIK, Albert** [US/US]; 507 Alger Drive, Palo Alto, CA 94306 (US).

(74) Agent: **KUNG, Viola, T.**; Howrey Simon Arnold White, LLP, Box 34, 301 Ravenswood Avenue, Menlo Park, CA 94025 (US).

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Declaration under Rule 4.17:

— *of inventorship (Rule 4.17(iv)) for US only*

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— *with international search report*
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHODS OF DIAGNOSIS OF CANCER, COMPOSITIONS AND METHODS OF SCREENING FOR MODULATORS OF CANCER

(57) Abstract: Described herein are genes whose expression are up-regulated or down-regulated in specific cancers or other diseases, or are otherwise regulated in disease. Related methods and compositions that can be used for diagnosis, prognosis, and treatment of those medical conditions are disclosed. Also described herein are methods that can be used to identify modulators of these selected conditions.



WO 2003/042661 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/36810

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C12Q 1/68; C07H 21/02, 21/04

US CL : 435/6; 536/23.1, 24.3

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 435/6; 536/23.1, 24.3

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
WEST, PubMed**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| A | SATO, H. et al., Cloning and Expression of a Plasma Membrane Cystine/Glutamate Exchange Transporter Composed of Two Distinct Proteins, J. Biol. Chem. 23 April 1999, Vol. 274, No. 17, pp. 11455-11458. | 1-7 |
| A | KIM, J. Y. et al., Human cystine/glutamate transporter: cDNA cloning and upregulation by oxidative stress in glioma cells, B.B. Acta. June 2001, Vol. 1512, pp. 335-344. | 1-7 |

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

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Facsimile No. (703) 872-9306

Authorized officer

Teresa Strzelecka

Telephone No. (571) 272-1600

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/36810

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claim Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claim Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claim Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
Please See Continuation Sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-7, SEQ ID NO: 19

Remark on Protest

☐
☐

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claim(s) 1-7, drawn to a special technical feature of a method for determining presence or absence of a pathological cell in a patient, said method comprising detecting a nucleic acid comprising a sequence at least 80% identical to a sequence as described in Tables 2A-80 in a biological sample from said patient, thereby determining the presence or absence of said pathological cell.

Group II, claim(s) 8-11, drawn to a special technical feature of an isolated nucleic acid molecule comprising a sequence as described in Tables 2A-80, expression vector comprising the nucleic acid and a host cell comprising the expression vector.

Group III, claim(s) 12, drawn to a special technical feature of an isolated polypeptide which is encoded by an isolated nucleic acid molecule comprising a sequence as described in Tables 2A-80.

Group IV, claim(s) 13, 14, drawn to a special technical feature of an antibody which specifically binds to polypeptide of claim 12.

Group V, claim(s) 15, drawn to a special technical feature of a method for specifically targeting a compound to a pathological cell in a patient, comprising administering to a patient an antibody of claim 13.

Group VI, claim(s) 16, 17, drawn to a special technical feature of a method for determining the presence or absence of a pathological cell in a patient, comprising contacting a biological sample with an antibody of claim 13.

Group VII, claim(s) 18, drawn to a special technical feature of a method for identifying a compound that modulates a pathology-associated polypeptide by contacting the compound with a pathology-associated polypeptide encoded by a polynucleotide which selectively hybridizes to a sequence at least 80% identical to a sequence described in Tables 2A-80 and determining the functional effect of the compound on the polypeptide.

Group VIII, claim(s) 19, drawn to a special technical feature of a drug screening assay comprising the steps of: administering a test compound to a mammal having pathology of Table 1 or a cell isolated therefrom; comparing the level of gene expression of a polynucleotide which selectively hybridizes to a sequence at least 80% identical to a sequence described in Tables 2A-80 in a treated cell or mammal with the level of gene expression of the polynucleotide in a control cell or mammal.

The inventions listed as Groups I-VIII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: claim 8 is anticipated by a sequence with accession No. BE440042 (Table 2A, first entry) (July 25, 2000), therefore there is no contribution of claim 8 over prior art.